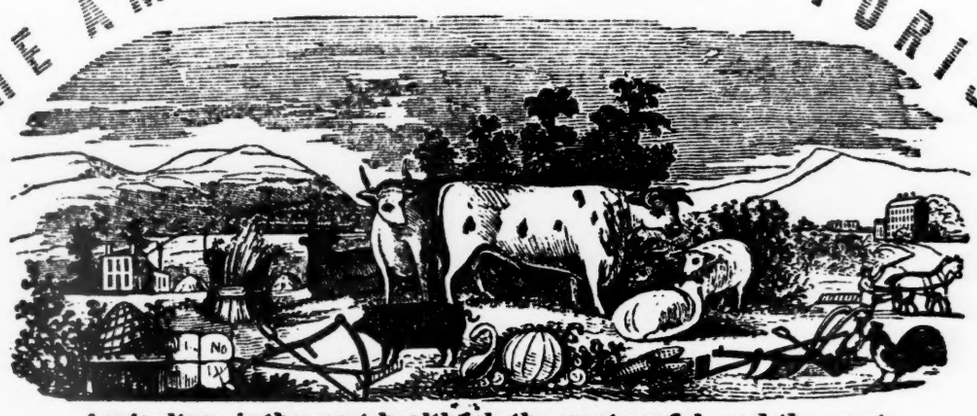
THE AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of Man.--*Washington.*

Vol. I. **New-York, October, 1842.** **No. 7.**

A. B. ALLEN, and R. L. ALLEN, Editors. SAXTON & MILES, Publishers, 205 Broadway.

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Advertisements will be inserted at $1, if not exceeding twelve lines, and in the same proportion if exceeding that number.

PRIZES awarded at the Annual Show of the N. Y. State Agricultural Society, held at Albany, 27th, 28th, 29th of September, 1842.

CLASS I.—CATTLE.—*Bulls of improved breeds, 3 years old and over.*

1 To E. P. Prentice, Albany, bull Nero, $20
2 " John Johnston, Geneva, bull Royal William, 12
3 " C. N. Bement, Albany, bull Astoria, 8
4 " D. D. Campbell, bull ——— Diploma.

CLASS II.—*2 year old bulls.*

1 To E. P. Prentice, bull Fairfax, $20
2 " Geo. Clark, West Springfield, bull Major, 12
3 " Geo. Vail, Troy, bull Wellington, 8
4 " John Sampson, Troy, bull ——— Diploma.

CLASS III.—*Yearling Bulls.*

1 To S. Van Rensselaer, Albany, bull Rockingham, $12
2 " E. C. Delavan, Ballston Centre, bull Leopard, 8
3 " S. Van Rensselaer, bull White Prince, 5
4 " Geo. Vail, Troy, bull Meteor, Diploma.

CLASS IV.—*Bull Calves.*

1 To E. P. Prentice, bull Cato, $10
1 " N. C. Sweet, Clifton Park, bull ——— 5
3 " Geo. Vail, bull ——— Diploma.
4 " J. M. Sherwood, Auburn, bull Damon, Diploma.

All the above bulls were of the Short Horn, or improved Durham breed, with the exception of "Major," No. 2, Class 2, which was a splendid specimen of the Hereford, imported by Mr. Wm. Henry Sotham.

CLASS V.—*Cows of improved breeds.*

1 To J. M. Sherwood, cow Stella, $20
2 " E. P. Prentice, cow Daisey, 12
3 " J. B. Dill, Auburn, cow Gazelle, 8
4 " J. M. Sherwood, cow Pansy, Diploma.

CLASS VI.—*2 year old Heifers.*

1 To J. B. Dill, Hebe, $12
2 " E. P. Prentice, Sally, 8
3 " " " Caroline, 5

CLASS VII.—*Yearling Heifers.*

1 To J. M. Sherwood, Norna, $10
2 " E. P. Prentice, Charlotte, 5

CLASS VIII.—*Heifer Calves.*

1 To E. P. Prentice, Nell, $10
2 " " " Dutchess, 5
3 " Geo. Vail, ——— Diploma.

All the above cows and heifers were Short Horns. There was a magnificent display of Hereford cows and heifers from Messrs Corning and Sotham's importation, but the committee did not feel disposed to decide the relative merits of *different breeds*, and therefore awarded three distinct additional premiums for this breed.

1 To Wm. H'y. Sotham, Hereford cow, Matchless, $15
2 " " " " " Martha 10
3 " " " 2 year old heifer, Maria, Dip.

There was also a beautiful Ayrshire cow and calf exhibited by Judge Van Bergen; but there being no one present to explain her pedigree, she was overlooked by the Committee as a *grade* S. Horn, they not considering themselves authorised by the terms of their appointment, to decide upon any but pure bred animals.

CLASS IX.—*Grade Cows.*

1 To G. W. Risley, New Hartford, $12
2 " Jesse Buel, Albany, 9

CLASS X.—*Grade 2 year old Heifers.*

1 To S. S. Fowler, Greenbush, $10
2 " L. V. V. Schuyler, Watervliet, 8

CLASS XI.—*Yearling grade Heifers.*

1 To C. N. Bement, Cream Pot, $10

CLASS XII.—*Native Cows.*

2 To E. Chesebro, Guilderland Centre, $8

CLASS XIII.—No award.

CLASS XIV.—*Native yearling Heifers.*

2 To L. V. V. Schuyler, $5

CLASS XV.

To E. Chesebro, Dairy Cow, Diploma.

Working Oxen.

1 To Winthrop Phelps, Chatham, $20
2 " Benjamin Aikin, Greenbush, 12
3 " W. N. Sill, Bethlehem, 8
4 " Henry Adams, " 5
5 " J. L. Ten Eyck, " Diploma.

Steers.—No award.

Fat Cattle.

1 To P. N. Rush, Syracuse, $20
2 " Charles Godfrey, Geneva, 12
3 " " " " 8
4 " T. E. Jones, Utica, Diploma.

Fat Sheep.

1 To F. M. Rotch, Butternuts, S. Down wether, $10
2 " J. McD. McIntyre, Albany, 5
3 " " " " Diploma.

Stallions over 4 years old.

1 To E. Long & Son, Cambridge, Eclipse, $20
2 " " " " Sir Henry, 12
3 " D. McKinney, Menaville, Magnum, Diploma.

A premium was given Mr. Sotham for his English black cart horse, Sampson.

Stallions, 3 years old.—No award.

Breeding Mares and Colts.—No award.

Matched Horses.

1 To Edward Brinckerhoff, Albany, $15
2 " Robert Johnson, Florida, 10
3 " Peter F. Mesick, Ghent, 5

Boars.

1 To Wm. Salisbury, Leeds, Berkshire. $10
2 " John Lossing, Albany, Berkshire. 8
3 " Samuel Shaw, Berlin, " 5
4 " J. B. Nott, Albany, Cheshire, Diploma.
5 " Cha's Thornton, Watervliet, Berkshire, do
6 " S. G. Crocker, Kinderhook, do do
7 " C. N. Bement, Albany, do do

Breeding Sows.

1 To T. C. Abrahams, Watervliet, Berkshire. $10
2 " Benj. Gibson, Albany, do 8
3 " Gerrit Donaldson, Bethlehem do 5
4 " Gerrit Middleton, Albany do Diploma.

Several Diplomas were recommended to others.

SHEEP—*Long Wooled Bucks.*

1. To Thomas Dunn, Guilderland, $10
2. " J. M'Donald McIntyre, Albany, 8
3. " E. C. Delavan, Ballston Centre, 5
4. " L. D. Clift, Somers, Diploma

Pen of 3 Ewes,

1. To Corning & Sotham, Albany, $10
2. " L. D. Clift, Somers, 8
3. " T. Dunn, Guilderland, 5
4. " J. McD. McIntyre, Albany, Diploma

Middle Wooled Sheep—Bucks.

1. To J. McD. McIntyre, $10
2. " F. M. Rotch, Butternuts, 8
3. " S. Wait, Montgomery, 5
4. " do. do. Diploma

Pen of 3 Ewes.

1. To F. M. Rotch, $10
2. " J. McD. McIntyre, 8
3. " S. Wait, 5
4. " C. N. Bement, Albany, Diploma

Fine Wooled Sheep—Bucks.

1. To Chas. W. Hull, New Lebanon, $10
2. " Henry D. Grove, Hoosick, 8
3. " John Mott, Mechanicsville, 5

Pen of 3 Ewes.

1. To Henry D. Grove, $10
2 " do. 8
3. " C. W. Hull, Diploma

PLOWS.—There was a fine assortment of superior Plows on the ground, but the Committee, after an investigation, with all the time and facilities within their reach, were not able to satisfy themselves of the respective merits of each; and they very properly concluded to postpone any further trial till the next Annual Meeting. In the mean time, they recommend that the Executive Committee increase the premium to an amount more worthy the attention of scientific mechanics. The Ag'l Soc. of Massachusetts awarded two premiums of $100 and $75; and it is believed by this liberal policy, they pushed improvement in this *most important farm implement*, further in one year than would otherwise have been done in twenty.

Threshing Machines.

1. To John A. Pitts, Albany, $20
2. " D. G. Stafford, Syracuse, 10
3. " L. Bostwick, N. York, Diploma

Straw Cutters.

1. To Wm. Hovey, Worcester, Mass. $8
2. " J. Standish, Fishkill Landing, 5
3. " Botts & Burfoot, Richmond, Va., Diploma

Cutting Machine for Horse Power.

To R. Sinclair, Baltimore, Md., best, Diploma

Horse Rakes.

2. To J. Downer, Castleton, $5
3. " Lewis Stiman, Bethlehem, Diploma

Fanning Mills.

1. To J. T. Grant & Co., Scaghticoke, $8
2. " P. W. Dickie, Phelps, 5
3. " John R. Bullock, New Scotland, Diploma

Harrows.

1. To Marcus Adams, Ogden, $8
2. " Christopher Proctor, Bethlehem, 5
3. " Daniel Caley, do. Diploma

Cultivators.

1. To Joseph H. Coons, $8
2. " Ruggles, Nourse & Mason, Worcester, Mass., 5
1. " Eliakim Elmer, Delta, Diploma
" J. C. Langdon, Troy, Horse Hoe, Diploma

Corn Crushers.

1. To Obed Hussey, Baltimore, Md., 8
2. " R. Sinclair, Jr. do. 6
3. " Jas. Murray, do. 4
4. " Do. do. Hand Crusher, Diploma

To T. R. Hussey, Auburn, for Harvesting Machine, $10
" Calvin Olds, Marlboro' Vt. for Grain Sower, Dip.
" J. A. Whitford, Saratoga Springs, Corn Sheller and Cleaner, Diploma
" C. N. Bement, Albany, for Poultry House, Diploma
" Henry Burden, for Horse Shoes, made by machinery, Diploma
" Daniel Caley, Bethlehem, for his improved Probang Premium
" W. S. Jacks, Catskill, Hay and Cotton Press, $5
" Mr. Crowell, Lime Rock, Ct., Thermometer Churn, Diploma
" Collins & Stone, Hartford, Ct., Cheese Press, Dip.
" H. Clark, Petersburgh, Hoe, Diploma

Cocoons.

1. To Miss L. Steele, $15
2. " David Palmer, White Plains, 10
3. " A. P. Heartt, Troy, $5
4. " David Palmer, Diploma

Reeled Silk.

1. To David Palmer, $15
2. " A. P. Heartt, 10
3. " D. Palmer, 5
4. " E. Marks, Navarino, Diploma

Manufactured Silk.

2. To Prince & Vibber, 10
8. " David Palmer, 5
4. " Mrs. T. Backus, Diploma

Silk Reel.

To A. B. Jones, $10

Butter.

1. To George Cooley, Blooming Grove, $20
2. " Israel F. Goodwin, Westmoreland, 12
3. " Hamilton Morrison, Montgomery, 8
4. " B. A. Hall, New Lebanon, 5
5. " John S. Bull, Washingtonville, Diploma

Cheese.

1. To Ezra Cheesebro, Fleming, $20
2. " A. S. Fisk, Cedarville, 12
3. " Samuel Green, Herkimer, 8
4. " Isaac Haswell, Watervliet, 5
5. " Thomas Burch, Little Falls, Diploma

Fruits.

To A. J. Downing, Newburgh, greatest variety of Table Apples, $5
" W. P. Buel, 2d do. 3
" A. P. Heartt, 3d do. 2
" A. J. Downing, best 12 sorts of Apples, 3
" Do. greatest variety Table Pears, 3
" W. P. Buel, 2d do. 2
" A. J. Downing, Newburgh, greatest variety of Winter Pears, 2
" E. Holbrook, Hyde Park, best 12 Quinces, 2
" A. P. Heartt, Troy, best 24 Plums, 2
" Alex. Ross, Hudson, best Native Grapes, 2
" A. T. Vanslyck, Coxsackie, best Foreign do. 2

Maple Sugar.

1. To B. Gauss, Jr. East Bloomfield, 15
2. " Wm. E. White, Walton, 10
3. " E. Bigelow, Sangerfield, 5
4. " C. Hepinstall, Albany, Diploma

Vegetables.

To V. P. Douw, Albany, Celery, 2
" James Wilson, do. Broccoli, 2
" William P. Buel, do. Carrots, 1
" E. Holbrook, Beets, 1
" J. B. Nott, Albany, Parsnips, 1
" J. H. Cole, Hudson, Onions, 1
" James Wilson, Cabbage, 1
" S. Leonard, Albany, Tomatoes, 1
" E. Holbrook, Egg Plant, 1
" Do. Lima Beans, 1
" J. B. Hudson, Albany, Curled Parsley, 1
Dr. H. Wendell, do. Squashes, 1
" E. Chesebro, Guilderland, Pumpkins, 1
" J. Townsend, Albany, Seed Corn, 1
" J. Buel, do. Table Potatoes, 2
" D. Payne, Bethlehem, 2d best do. 1
" E. Holbrook, Sugar Beet, 1
" D. Payne, Muskmelons, 1
" James Coffee, Albany, German Greens, 1
" Alex. Walsh, Lansingburg, 15 kinds Potatoes, 1
" Dr. H. Wendell, Kelsean do. 1
" Wm. Hy. Sotham, Ruta Bagas, 1
" J. S. Paynburn, Bethlehem, Squashes, 1

Horticultural Implements.

To B. F. Smith & Co. Syracuse, $10
" Jordan L. Mott, N. York, Cast Iron Vase, 5

Manufacturss

To J. Pine, Pittstown, Woolen Blankets, 5
" J. J. Viele, Hoosick, Woolen Carpets, 5
" A. Koonz, Albany, Double Carpet Coverlid, 5
" A. Fitch, Jr. Salem, Linen Diaper, 3
" E. Wilson, Vernon, Hearth Rug, 3
" A. J. Pine, Knit Woolen Stockings, 1

The Report of Premiums on Flowers and unenumerated articles were not with the Executive Committee and as we cannot keep this No. open longer, they will appear in our next.

The Show was held on the spacious enclosure at the Bull's Head, about a mile above Albany. A fine carriage way, in admirable order, one mile in length, surrounded the area devoted to the exhibition, and afforded a beautiful drive to the numberless vehicles of every description, which were filled by ladies and others, whom a laudable curiosity and the excessive brilliancy of the weather, brought out in throngs. A temporary fence within and adjoining the road was the head-quarters for the whole horned tribes, and pens, conveniently arranged in long parallel lines, afforded ample room for the woolled and bristly families. The implements of husbandry were appropriately arranged in the open area, while well-protected sheds with shelves and tables, afforded every facility for the display of vegetables, roots, flowers, butter, cheese, sugar, farming tools and various articles of domestic manufacture. A large tent near the entrance was appropriated to the executive and other committees; while another near the centre contained a herd of 27 buffalos and one elk, which being the product of other states, were not entered for premiums.

The first day of the Fair was devoted to the examination of Plows and such agricultural implements as were on the ground, of which there was a good assortment. We noticed no implements of marked improvement over previous exhibitions, but in most, there was a slight advance on those before displayed. Many of the plows were beautiful specimens of mechanical work, and embody beyond any question, the best principles yet discovered. Several sub-soil plows of much merit were shown; also many specimens of cultivators were exhibited, and one of a new, and we should judge, a valuable improvement, the invention of J. C. Langdon of Troy, to which a diploma was awarded as a *horse hoe*. It consists of a wide double, flat share, with sharp edges for cutting the weeds and loosening the soil, and double upright guards on each side, to pulverise the earth, as well as prevent the hilling of the rows on either side.

A great variety of the various articles required on the farm were on the ground from several other states, especially from Massachusetts, Maryland and Virginia, and it must be confessed our southern brethren, have shown a spirited and successful competition in the improvement of our *Yankee notions*.

The second day, 28th, was the commence-

ment of the cattle show, and a splendid show it was. It is believed, no other occasion, has ever witnessed so great and beautiful an exhibition of the improved breeds of cattle. We should judge there were nearly 200 thorough bred Short Horns on the ground; and most of them choice specimens, creditable not only to this country, but such as would be so considered even in England, the country of their origin, and where they have attained their greatest perfection. Of Herefords, there was the herd imported by Mr. Sotham and their descendants, the subject of much and deserved admiration. Only three or four specimens of Ayrshire were exhibited. Of the Devons, not a single specimen of pure bred, so far as our observation extended, was exhibited. *We will insure* a creditable representation of this branch, of the great cattle family, at the next annual show to be held in Western New York.

The grade animals were not numerous, nor did they possess that merit we have a right to expect; a deficiency which it is believed is attributable not to the want of animals, but a want of spirit in exhibiting. Of native bred cattle there was a sad deficiency. We felt ashamed of our native cattle if they are to be judged from the display there made. We believe our farmers have better, and if they have not, they should lose no time in crossing over the line to Massachusetts and Connecticut, and import some of the beautiful and valuable natives they possess in so great abundance. It will be perceived that no awards were given in some of these classes, and only the lowest premiums in others. There needs a little, yes, a *good deal* of book farming among the breeders of native animals. If another such deficiency occurs we *shall advocate raising the premiums*, and *open these classes to the Union.*

The fat cattle were superb. The large ox belonging to Mr. Rust, evidently a distant relative of the Herefords, weighs over 4200 lbs. and the pair of well matched red oxen, shown by Mr. Godfrey, were estimated to come nearly up to 6000 lbs.

In sheep, the greatest display by far was among the long wools. Numerous and beautiful specimens were shown, of the Cotswold, Lincoln and Bakewell, from our most eminent breeders of these varieties. The middle wools had some beautiful representations, among which we noticed the splendid South Down Wether imported by Mr. Rotch last season, which was afterwards slaughtered, and though not in great condition, was found to weigh, dressed with the head, 140 lbs. Mr. Grove showed several of his beautiful Saxons, though small, their intelligent owner contrives, from the weight and value of their fleece, to make them count, like guineas among coin. Of Merinos we are absolutely ashamed to speak. From the millions of this invaluable variety, New York has the credit of possessing, not one pure bred animal was on the ground; and but one we believe of their cross; the premium buck of Mr. Hull, whose blood was equally divided with the Saxon. Not only New York, but the whole Union requires to renew and reinvigorate the veins of this long tried, thoroughly approved race, so perfectly adapted by general consent, to our national wants. We have more to say about this hereafter.

The show of horses in the first class was peculiarly fine, and well meriting more premiums than they received. Of younger males, and breeding mares, the show was so deficient, that no awards were given. Several beautiful mares were shown, bnt not being *breeders*, were not considered as entitled to premiums. The match horses were numerous and some of them magnificent.

Mr. Sotham exhibited his imported 4 year old Sampson, a fine specimen of the English Black cart horse, 16 hands high, and of great substance. Mr. Edward Harris of Moorestown, New Jersey, showed his superb imported Norman horse, Diligence, 7 years old, 15½ hands, of great compactness and power, and admirably designed to improve many of the work horses of this country.

The Berkshires had it all their own way among the swine, though the animals on the ground were exclusively from the immediate neighborhood. We saw, however, some pretty specimens of the Chinas, Neapolitans, Byfields, and Cheshires. The show in this department was less numerous than it should have been, but the limited premiums are so disproportionate to the expense of bringing the competitors from a distance, that it is not likely to be much increased.

The show of cocoons, and raw and manufactured silk was very limited. The specimens were good so far as they went, but we hope for a better story for this department hereafter.

The butter and cheese were very fine, and worthy of high commendation. We noticed our Orange Co. friends there in great force, but they have set their neighbors so high a standard for so long a time, that they have now a competition which it is difficult to overcome.

The fruits were very splendid, and of every

kind in season, and one's palate must be hard to please that could not find ample satisfaction in what was there displayed. The vegetables were of great variety and excellence, and would do credit to any kitchen garden; while the flowers, in all their brilliancy of hues and tasteful variety of forms, constituted a tangible rainbow, that breathed their promises of succeeding and abundant seasons to the confiding husbandman.

The articles of domestic manufacture were fewer than we hoped to see, for it is only where the efforts of the good man without, are sustained by the industry, skill, and good management of the wife within, that he can hope for that share of success he has a right to look for as the reward of his labors. The articles exhibited were, however, good of their kind, and show that American females have but to devote their attention to this subject, to achieve the highest performances.

The plowing match was well sustained, and did great credit to the various competitors, most of whom were fully entitled to some substantial token of approbation from the society. Believing as we do, this is one of the most important parts of our annual exhibitions, we would unhesitatingly advise a silver cup be awarded to every meritorious effort.

The 30th was devoted to the sale of animals, and we cannot but feel a mortification that so many valuable animals were suffered to pass under the hammer, at prices that cannot but check the spirit of enterprise on the part of breeders. It is true the times afford some excuse for the low prices offered; but there are those *who have the means, and who have not the stock*, that can be purchased with so much advantage to themselves, and with such meagre compensation to the breeder. We consider an annual sale at the close of the fair a highly important feature to engraft upon the exhibition, where such animals as are desired can be seen and examined at leisure, and their merits compared with numerous others of acknowledged excellence; and we trust the little success with which this plan has hitherto been attended, will not prevent our breeders from pursuing it, till it is fully and successfully established.

A meeting of the Society was held at the Capitol on the evening of the 28th, when some excellent speeches were made, as we were informed, other matters having required our attendance elsewhere. Some resolutions were introduced by Mr. Johnson of Oneida, expressing a strong desire to make *agriculture* a branch of our common school education, and incorporating it into a thorough course of literary acquirement.

America is getting strength on the subject of agriculture, and if the spirit that has brought it into such conspicuous notice for the last ten years, goes on with the accelerated force we have a right to expect from its advocates, we may look for nobler and more commanding developments on this great and leading interest, than has hitherto characterised the advancement of any science, art, or occupation, in ancient or modern times, in this country or any part of the world. A committee for the purpose of memorialising the legislature on this subject was appointed, consisting of the following gentlemen:

Rev. J. O. Choules, I. J. Brooks, Dr. J. P. Beekman, Hon. Jno. Savage, B. P. Johnson, G. I. Pompelly, Harvey Baldwin, and Jas. S. Wadsworth.

The fair was terminated by an address from Gov. Seward, replete with just and patriotic views; and the society was adjourned till January 1843, when the premiums on field crops, and essays, and to artists and breeders, will be awarded.

Some of the arrangements for the exhibition gave considerable dissatisfaction, and if not obviated hereafter, may interpose serious obstacles to success. Among these, we particularly noticed the want of food and shelter for the animals, the last of which was in a great measure obviated from the general fineness of the weather. The position of many of the animals too, was peculiarly objectionable, they being scattered over an extensive range of uneven ground, and in several places with a ditch intervening between the fore and hind feet, which in their change of posture, frequently gave them an appearance of going up stairs or down, while no opportunity of seeing them in front was afforded, unless by climbing over a fence, where the committee was brought cheek by jowl with the animal; the only alternative being a retreat down a declivity of some feet, where, of course, any proper or adequate view of the animal was out of the question. The pedigrees and performances of many animals claimed to be pure bred, were not furnished in a manner satisfactory to committees. But as this is among the first attempts of a State fair, it seems uncharitable to censure where there is so much to commend, and we suspend our suggestions for the future executive committees that may hereafter be appointed.

Tour in England, No. 7.

Wood being scarce and high in England, the farm buildings are almost universally of stone or brick walls, with thatched, tiled or slated roofs. Those of an ancient date are often of large dimensions, and very singular in construction; the walls not being over 4 to 8 feet high, and the roof running up 30 to 50 feet or more, at quite a steep slope. From these, high walls and thatched sheds run off at right angles, inclosing the barn-yard on three sides, leaving it open only to the south; so that however rude and inconvenient the buildings may be, the yard is always protected from the cold wind, and thereby made a comfortable shelter for cattle; a matter, we regret to say, that is not sufficiently attended to by the American farmers in planning their buildings, and which deserves severe animadversion. The more modern construction of barns and stables in England is very complete. These are of handsome architecture, with strong walls, slated roofs, and abounding with every convenience. They are placed in the form of a quadrangle, inclosing large yards, well paved with round cobble stone, and usually hollowed in the centre. When horned cattle are not kept to eat up the straw, as fast as the grain is threshed out, it is spread in the yard for the comfort of the stock there, and to rot, and be mixed up with the manure the following spring, to be applied to hoed crops. We saw few cess-pools here, and suspect that in this respect generally, England, as yet, is far behind Flanders in the saving and application of liquid manures.

As the country does not abound in springs, and as the climate is very wet, the necessity of wells to supply their place is obviated by making ponds. These, too frequently, are situated close to the barn-yards, and receive all their wash, which is not only a great loss in swallowing up the liquid parts of the manure, but must prove, even in this cool climate, thus mixed with the drink of the stock, very prejudicial at times to its health. Yet we found many farmers so ignorant, or so obstinate in favor of the custom, as to contend that this wash even possessed *sanative* qualities. We wish the system of paving barn-yards could be introduced more generally among us than now prevails, as it gives them a neat, comfortable appearance, which makes it a pleasure rather than a disgust then to the lover of domestic animals to visit them.

Early in the spring, the manure is piled up into large heaps, when it undergoes "firing" and fermentation; this certainly causes a great loss, as the ammonia and other volatile gasses, which are its most fertilizing properties, thereby escape into the air. The object of fermenting and firing it with the farmer, is to destroy all hay and weed seeds that are accumulated in it, and thus prevent the springing up and growth of noxious vegetables among his crops. This undoubtedly makes a cleaner field, and one that requires much less hoeing, but then is not the loss sustained in the firing of the manure equivalent to the extra labor required in destroying the weeds? We often put this question when in England, not only to the practical farmer, but to scientific men, who had written much and ably on manures, yet never obtained a satisfactory answer, from the reason, we suppose, that those with whom we came in contact, had not made it a subject of experiment. Our inference is, that where labor is dear, firing would be best; but where labor is cheap, the application of it in an unfermented state, is the most economical. When land is so cheap as it is in many parts of America, some contend that it is best to apply the unfermented manure on a naked fallow, and then as fast as the weeds get up, plow them in, and for the next year's crop they thus have a clean field and a greatly enriched soil. This, however, is doubtful, and we should be glad to see it settled by careful experiment on the different soils in various localities. By placing a layer of manure, then scattering a small quantity of gypsum upon it, with an intermixture of earth, then another layer of manure, and so on till the pile is completed, giving it a good coating of earth for the last operation, might possess all the advantages of firing, and still retain the volatile gasses that would otherwise escape and be lost.

Where the soil is heavy, not only is the barn yard paved, but the lanes leading to it are gravelled, or Macadamised, which is another great comfort that our wealthy landholders little heed, more especially at the west.

Much more attention is paid to plats of turf and flowers and shrubbery around their houses than with us, and in addition to these, every good farmer has his own extensive kitchen and fruit garden, where all things proper for them, that will grow in the open air, are produced in great perfection. The best gardens are enclosed by a high stone or brick fence, which breaks off the cold winds, and enables them to better hasten or retard the growth of fruits and vegetables. On a south exposure of

the wall, a sloping bed of ten feet wide, or so, is laid up of sandy soil; this is for the early productions. On the north side a similar slope is made with a clay soil for the later ones. In this way, fruits and vegetables may be prolonged two to four months. Currants for instance, are easily kept from July to November, and strawberries from June to September; peas, beans, and other summer vegetables in the same way. With our fervid sun and drier climate, so great a difference perhaps could not be made; still we have seen fruits and vegetables in America frequently accelerated a fortnight in ripening, and kept a whole month longer than usual in great perfection by the introduction of walls around the garden.

Although it may not counterbalance the many ills engendered in consequence of it, there is, it must be confessed, one great advantage arising to England, from the possession of large estates by a wealthy and enlightened few; for they not only have the ability, but generally the will and inclination, to immediately adopt the improvements of a Tull and a Bakewell, and avail themselves of the discoveries and scientific applications of a Davy, in the cultivation of those estates and stocking them. This also elevates the condition of the tenant farmer, who comes immediately in contact with the landlord; for he must be taught at once more or less of the reasons of the improvements. But it is not necessary that we should have a privileged class to bring about the same desirable ends; what we want, is, that the different state governments should apply funds for the promotion of agricultural science, and making experiments, and in the event of failing to bring this about, state and county societies may do much; and the formation of farmers' clubs, as has partially been done already among us, in every little neighborhood and community, may effect still more. These last should have each its little library of standard books on agriculture, together with the best periodicals of the day, for general reading and distribution. They should also during the winter season meet at least one evening in a week, alternately, at each other's houses, to talk over and discuss agricultural affairs, and promote each other's welfare and improvement. Each, also, during the summer season, should be bound to make some little agricultural experiment to communicate to the society. Mind thus would stir up mind, impart and obtain knowledge, and prove of incalculable benefit to itself and our whole common country.

The greatest recent improvement that has been introduced into England, is the sub-soil and sub-turf plows; the first being equally effectual, and answering the same end, as double or trench spading, heretofore partially made use of in gardens and some few field crops; but owing to its great expense, the sub-soil plow was invented to obviate it, and most admirably has it succeeded, doing the work at one-fourth to one-sixth the cost of spading. The principal benefit derived from sub-soil plowing is, that it loosens the ground to thrice the depth of mere surface plowing, and thereby opens it to the admission of so much greater depth of air and heat, and the fertilizing effects of the atmosphere, and especially in dry weather, to the continued absorption of aqueous vapors. Besides the roots of all plants can penetrate much further when this is done, in search of food, which better enables them to resist drought, and when the soil is tolerably porous or well drained, the effect also of heavy rains.

Mr. Smith, of Dunston, Scotland, was the first to bring this plow into general notice, and he somewhat enthusiastically, though perhaps truly enough, thus describes the beneficial results.

"When land has been thoroughly drained, deeply wrought, and well manured, the most unpromising, sterile soil becomes a deep rich loam; rivalling in fertility the best natural land of the country: and from being fitted for raising only scanty crops of common oats, will bear good crops of from 32 to 48 bushels of wheat, 30 to 40 bushels of beans, 40 to 60 bushels of barley, and from 48 to 70 bushels of early oats per statute acre; besides potatoes, turnips, mangle-wurtzle and carrots, as green crops, which all good agriculturists know are the abundant producers of the best manure. It is hardly possible to estimate all the advantages of a dry and *deep* soil. Every operation in husbandry is thereby facilitated and cheapened; less seed and less manure produce a full effect; the chances of a good and early tilth for sowing are greatly increased; a matter of great importance in our precarious climate; and there can be no doubt that even the climate itself will be much improved by the general prevalence of land made dry."

Sir Edmund Stracey, in a communication to the Royal Agricultural Society, thus speaks, also, of the beneficial effects of the sub-soil plow.

"On my coming to reside on my estate at Rackheath about six years since, I found five

hundred acres of heath land, composing two farms without tenants; the gorse, heather and fern shooting up in all parts. In short, the land was in such a condition, that the crops returned not the seed sown. The land was a loose loamy soil, and had been broken up by the plow to a depth not exceeding *four inches*, beneath which was a substratum (provincially called an iron pan,) so hard, that with difficulty could a pickaxe be made to enter in many places; and my bailiff, who had looked after the land for thirty-five years, told me that the lands were not worth cultivation, that all the neighboring farmers said the same thing, and that there was but one thing to be done, viz., to plant with fir and forest trees; but to this I paid little attention, as I had the year preceding allotted some parcels of ground, taken out of the adjoining lands, to some cottagers; to each cottage, about one third of an acre. The crops on all these allotments looked fine, healthy, and good, producing excellent wheat, carrots, peas, cabbages, potatoes, and other vegetables in abundance. The question then was, how was this done? On the outside cottage allotments all was barren. It could not be by the manure that had been laid on, for the cottagers had none but that which they had scraped from the roads. The magic of all this I could ascribe to nothing else but the spade; they had broken up the land eighteen inches deep. As to digging up 500 acres with the spade to the depth of eighteen inches, at an expense of 6*l*. an acre, I would not attempt it. I accordingly considered that a plow might be constructed so as to loosen the soil to the depth of eighteen inches, keeping the best soil to the depth of four inches, and near the surface, thus admitting air and moisture to the roots of the plants, and enable them to extend their spongioles in search of food; for air, moisture, and extent of pasture, are as necessary to the thriving and increase of vegetables as of animals. In this attempt I succeeded, as the result will show. I have now broken up all these 500 acres eighteen inches deep. The process was by sending a common plow, drawn by two horses, to precede, which turned over the ground to the depth of four inches; my sub-soil plow immediately followed in the furrow made, drawn by four horses, stirring and breaking the soil twelve or fourteen inches deeper, but not turning it over. Sometimes the iron pan was so hard, that the horses were set fast, and it became necessary to use the pickaxe to release them before they could proceed. After the first year, the land produced double the former crops. Many of the carrots being sixteen inches in length, and of a proportionate thickness. This amendment could have arisen solely from the deep plowing. Manure I had scarcely any, the land not producing then stover sufficient to keep any stock worth mentioning, and it was not possible to procure sufficient quantity from the town. The plow tore up by the roots all the old gorse, heather, and fern, so that the land lost all the distinctive character of heath land the first year after the deep plowing; which it had retained, notwithstanding the plowing with the common plows, for thirty-five years. Immediately after this sub-soil plowing, the crop of wheat was strong and long in the straw, and the grain close-bosomed and heavy, weighing full sixty-four pounds to the bushel. The quantity, as might be expected, not large, (about twenty-six bushels to the acre) but great in comparison to what it produced before. The millers were desirous of purchasing it, and could scarcely believe it was grown upon the heath land, as in former years my bailiff could with difficulty get a miller to look at his sample. Let this be borne in mind, that this land then had had no manure for years, was run out, and could only have been ameliorated by the admission of air and moisture by the deep plowing. This year the wheat on this land has looked most promising; the ears large and heavy, the straw long, and I expect the produce will be from 34 to 36 bushels an acre."

Here are most important improvements detailed with exactness, and it seems that these great benefits were accomplished with scarce the aid of manure, but simply by the use of the sub-soil plow, an instrument within the means of any of our own farmers, however limited they may be, for the cost of it in America is hardly half of that in England, and there can always be a uniting of teams among neighbors, for the purpose of obtaining the requisite force to move the sub-soil plow, at a sufficient depth to ensure the desired amelioration of the soil. The increase of the crops will enable the farmers to add to their stock, and this would make them an increase of manure, and they could thus go on and fertilize their soil to any reasonable depth and extent. How much better would the making of such improvements be for them, than to break up, as they so often do, all old associations; separate themselves from the land of their fathers; forsake home, kindred, and friends, and the comforts and refinements of a denser population, to seek

rich lands, in a wild, distant, unknown, and unhealthy region—hundreds, or perhaps a thousand miles off. Verily it must be said of us, that we are a restless, roving, nomadic people. But there is no part of America as yet where a crowded population exists, and there is not that necessity for emigration, therefore, as in this old world; besides, other things unknown to us, bear on the people here, such as exorbitant tithes and taxes, and entailed privileges, which force many more independent families to remove than otherwise would, were the dense population of Great Britain alone considered.

We hope Sir Edmund was sufficiently mindful to reward his poor cottagers for setting him so good and profitable an example, in breaking up and fertilizing his poor heath land. As we understand from the examination frequently of what we suppose similar land, his sub-soil was gravelly and sufficiently porous to take in all superabundant water; with Mr. Smith the case is the reverse; his soil is a stiff clay, and without thorough draining, the expense of sub-soil plowing would have been entirely thrown away, as it would only make a deeper bed to hold the accumulating waters of the extraordinary wet climate of Great Britain.

Sir Edmund Stracey made use of another instrument somewhat similar, on his permanent grass land, called the sub-turf plow.—"It is used," he says, "to loosen the turf about ten and a half inches deep below the surface, without turning over the flag; loosening the soil underneath, consequently admitting the air and the rain, and permitting the roots of the herbage to spread in search of food. There are no marks left by which it can be known that the land has been so plowed, except from the straight lines of the coulter, at the distance of about 14 inches one from another. In about three months from the time of plowing, these lines are totally obliterated, and the quantity of aftermath, and the thickness of the bottom, have been the subject of admiration of all my neighbors. Another advantage from this sub-turf plowing is, that before that took place, water was lying stagnant in many parts after heavy rains, especially in the lower grounds to a great depth; now no water is to be seen lying on any part, the whole being absorbed by the earth."

In addition to the beneficial effects of the sub-soil plow for grass, grain, and long roots, we saw equally good effects produced from its introduction in the preparation of the soil for turnips, and we cannot but think that sub-soil plowing in our own country would be a complete preventive to winter killing wheat, for when the land was thus prepared, the roots of the grain would penetrate so deeply into the earth that the freezings and thawings of early spring could not affect them, especially if the wheat was sowed as early as the first week in September for the latitude of New York, and plowed in about three inches deep, and the ground left in its rough state without harrowing or rolling.

Note.—Since the foregoing was sent to press, we have received the English Agricultural Journals for August, and find in the London Farmer's Magazine, the report of a lecture by Mr. Smith, of Deanston, on Thorough Draining and Sub-soil Plowing, before the Royal Agricultural Society, at its annual meeting in July, at Bristol, further elucidating the subject alluded to in our letter, and bringing another year's experience and practice in his improvements. We have marked several passages of this admirable lecture for insertion in our November number, and again call the attention of our readers to the subject. They will find an engraving of a cheap and simply constructed sub-soil plow on page 28 of the April No. of this periodical, and for the best experiment detailed us of sub-soil plowing and cultivating grain, grass, or root crops, in America, we offer the premium of five year's subscription of the American Agriculturist; for the second best, three years; and for the third, one year's subscription.

Practical Farming—Wheatsheaf Farm.

In a brief visit we recently made to the farm of W. A. Seeley, Esq., of Staten Island, we noticed much worthy of imitation that is not in general use; and as we deem a detail in the practice of such improvements as we desire to inculcate, the most pleasing, intelligible, and effectual mode of making them understood, and commending to general acceptance, we think we cannot better occupy the attention of our readers for a few moments, than by laying before them some of the operations of one of the best practical and theoretical agriculturists of the present day. The farm of Mr. S. consists of about two hundred acres, of considerable diversity of soil, from a sandy beach, through almost every variety of light gravelly loam, to the stiffest clay. The eastern side is bounded by a bay, which is connected with the Atlantic, and it rises gradually from the beach to a moderate elevation in the rear, of from 60 to 75 feet. Most of the land is undulating,

affording several natural ponds, which have, like similar depressions in much of the land at the east, been the depository of *peat* for ages. These ponds have been drained by surface and under drains, many of the latter requiring to pass 15 feet or more under the surrounding knolls, to afford a perfect outlet to the whole surface water. A small part of the land was under cultivation when Mr. S. purchased it a few years since, and even that small portion afforded but a scanty subsistance to its thriftless owner. How many such farmers have we in the starving occupancy of lands that contain hidden mines of wealth? A large cedar common that had never been considered worth enclosing, now yields some of the most luxuriant crops, after furnishing a large supply of posts and rails from the tops, and a stock of fuel from its roots. Much additional land has been cleared and brought into profitable cultivation, and the portions of it before tilled, have been made to quadruple their previous crops. The operations of every department are reduced to the utmost simplicity, and are everywhere conducted with great efficiency, economy, and success. The crops are of the ordinary kinds raised by our farmers generally, which renders the example furnished to some of his less skilful neighbors, the more valuable. Roots and corn; rye, barley, or wheat, and grass, follow each other in such rotation and at such intervals, as the condition of the land and the demands of the market require; but as the farm is wrought entirely by laborers at wages, it is deemed expedient to keep as large a portion in grass as possible, hay usually being worth in this market, $15 to $20 per ton, and the land yielding about two tons per acre, which is secured at a small expense, the income, it will be readily seen, is very large in proportion to the labor expended. A large vegetable garden with every variety of esculents, cultivated in great luxuriance, with a fruitery and orchard, complete the arrangements of the productive acres.

A considerable portion of the farm, however, is yet in its original forest, and we there saw clusters of white-oaks, of a length and diameter of stem that would not discredit our magnificent, western woods. The buildings are in a style of entire plainness and simplicity, yet with perfect adaptation to the object in view. A large and well constructed windmill, of the most substantial kind, occupies one of the group of farm-buildings, which is used during a great part of the year in grinding for this and the neighboring farms. But the peculiar merits of the outbuildings consists in the barns. There are two of them, of large size, and so constructed, as to afford the greatest quantity of available room. They are both built upon a side hill, thus enabling the loaded hay and grain to be drawn in upon a level with the upper side, and the entire floor is appropriated to their occupancy, while at the same time that it affords a great abundance of convenient room, saves the trouble of pitching it high, and furnishes the fodder just where it is wanted to feed into the racks for the stock below. The underground room of one is divided into stalls for horses on either side through its entire range, 130 feet, and a large gangway, accessible by folding doors at each end, runs through the centre, affording ample room for carts or wagons for the purpose of removing the manure. Water is admitted at one end through a stop-cock from a pond above, forming a reservoir from the drains. Commodious yards adjoining, afford space for exercising the animals. This barn is expressly designed for stabling supernumerary horses from this city through the winter, yet its construction admits of its being used to equal advantage for any other stock. The other barn being designed for cattle and sheep, is open on the south, and the other three sides are occupied with racks for the stock, which are divided, when necessary, by partitions and enclosures. Two other barns we have recently seen, possess nearly equal advantages; one belonging to Judge Huntington, of Hartford, placed on a side hill with one range of stalls for feeding on the weather side, and a range of cellars on the wall side, convenient for the reception of roots, which can be emptied from the carts above, and are there just where wanted for the stock, and are never liable to freezing; the other lately built by Mr. Justice Harwood of the Shaker family, at Watervliet, furnishing two under stories from the natural declivity of the ground, and an additional one by the winding ascent of a road, and an acclivity of a few feet to the centre of the building on the floor within the building, forming an access for a heavy load, that nothing but their powerful and well disciplined teams could ever encounter with success.

But the particular advantage of the first-mentioned barns, consists in the admirable contrivance afforded for the accumulation and economical preservation of the manure. Under shelter from the washing rains and exhaust-

ing sun, well mixed with earthy and vegetable matter, it is here retained till it can be advantageously applied to the land. Between and contiguous to the barns, is a tank capable of holding twenty-five thousand gallons, which is the receptacle of those enriching liquids of the farm-yard, without the retention and careful application of which, to the growing crops or stercorated heap, no farming arrangements can be deemed complete. An outlet near the top conducts off the surplus liquid to a heap of compost if it rises too high before required for use, by which it is absorbed. At all other times the cistern is emptied by sheetiron buckets attached to a revolving iron chain, and propelled either by the windmill, or if necessary, by horse-power, the shaft geering into either as required.

The great excellence of the management of this farm, we conceive to be, in the judicious arrangement and thorough application of every means for increasing the stock of manure; and for the accomplishment of this object, there is a combination of peculiar natural advantages, controlled and directed with much skill, and admirable science on the part of the enlightened proprietor. A principle in constant exercise with regard to the land itself, is one we have before earnestly enjoined, viz.: that it should be constantly working for its own or its proprietor's advantage. When not occupied by a remunerating crop, it is employed in producing something for its own benefit, and whatever is thus produced, is turned in for the support of future crops. The animal and vegetable manures, both liquid and solid, we have before seen, are husbanded and applied with the greatest care. There are yet three other sources of fertilization of limited diffusion among farmers, though greatly abounding here; the peat and muck beds before referred to; the sea-weed which is driven on to the shore in great quantities, charged with salt and vegetable matter; and the moss bankers, alewives, or bony fish, that are caught in the greatest abundance in May, June, and July. The sea-weed is hauled up to the yards and stored for the double purpose of affording beds for the cattle, absorbing the liquid manure, and adding to the compost heap. A combination of the peat and fish which are mutually corrective of each other, forms the most fertilizing material for the soil.

Peat, it is well known, consists of decayed vegetable matter, which in portions of Europe, and especially the islands of Great Britain and Ireland, is found in great extent and purity, often reaching to the depth of 5 to 40 feet, and it is there extensively used for fuel. In the cultivated parts of this country, however, it is generally mixed with a considerable quantity of earth, and is seldom adapted to any other object, than the reproduction of vegetable life. The organic matter of which it is composed, is principally the bark of the larger vegetable products, with various species of the mosses and lichens, and especially the sphagnum, a prolific, bog-producing water plant, which grows and matures on the surface of the swamps, and then falls to the bottom, to add to the accumulating mass. But though abounding in fertilizing materials, it will not yield them in its natural condition.

It is saturated with tannic acid, which constitutes the antiseptic or preservative principle, that has suspended the natural tendency to vegetable decay for ages, and which would still continue to hold it unchanged but for the labors of the husbandman.

The first operation is effectually to drain off all the water; then, if required for manure, to throw it up from its native bed and place it wherever required for the compost heap. An exposure of some weeks or months, according to the season, is required, to dry it thoroughly and allow of the beneficial action of the atmosphere. It is then mixed in alternate layers, with one-third or a less proportion of manure, or with ashes, or its equivalent, a solution of potash; or what is perhaps more valuable and more economical, when to be had at all, than either of the foregoing, animal matter of any kind, a dead horse having been found to convert 20 loads of peat into the finest quality of manure. The material used by Mr. S. for correcting the acidifying principle of the peat and rendering it every way adapted to the object in view, is the fish before alluded to, which are taken in unlimited quantities early in the season, and are of no value for any other purpose. These are hauled up to the peat beds and are there mixed in layers of about 3 inches of fish to 9 inches of peat, the pile when complete, to be covered with 2 to 4 feet of peat, which absorbs all the enriching and volatile matter of the decaying fish, which might otherwise escape.

We have in this process, a combination of advantages. Fish have for a long time been extensively used along the sea coast, as manure, but the application is made directly to the land, being scattered broadcast

over the ground and plowed in when a crop of the smaller grains are required, or put in hills or dibbled in when corn or roots are cultivated. When applied in this way it affords efficient manure for a single season, but the rapid tendency to decay, and extreme volatilization of the gases it generates, allows a large portion of the nutritive matter to escape, and taints the air for a great distance with its putrid odors. This is a *compound error* which is entirely obviated by the use of peat, which is in that condition precisely in which it is best fitted to absorb the volatilised animal matter,and this it does most effectually as fast as generated. The absorption is complete, for not a particle of putrescent effluvia is detected by the most sensitive olfactories. A strong acid smell is perceptible,which arises from the expulsion, or rather liberation of the acetic principle from the vegetable matter with which it has ever before been in combination, owing to the stronger affinity it has for the gases generated by the decaying fish. The observing farmer will here note the strongly contrasted results of the combination of two materials under different circumstances. Animal matter in contact with the material affording tannic acid, or immersed in the liquid which is saturated with it, is most effectually preserved; but when freed from this, it is the most efficient agent in effecting its dissolution. Hence this matter which has existed unchanged for centuries, when placed under favorable circumstances, not only exhibits a tendency to rapid decay, but becomes a powerful means under the direction of science, in effecting the dissolution of other matter.

After remaining in the heap a few months decomposition is completed, and it may remain without injury or waste till wanted. Two or three weeks before using, it should be broken up and intimately mixed by commencing at one end, and overhauling the entire mass, when another fermentation commences, and the mass becomes rapidly heated to 90° or more, and it is then fitted for use, and may be applied immediately to the land.

But independent of these exhaustless sources of fertility, no particle of animal or vegetable manure produced upon the farm, is allowed to be wasted. All is preserved and added to the general stock of compost. The necessity of resorting to the city for manure at a large expense, is here shown to be unnecessary, and those who at first jeered at this undertaking, are now wisely following the example. Since the full organization of the farm, there has never been less than 2000 loads of surplus manure ready for use.

A small patch of the stiffest and most unpromising clay, from which, Mr. S. says his first attempt for a crop of buckwheat, resulted in a growth of about six inches; by an addition of a coating of sand plowed in, and a subsequent one harrowed over the surface, produced a most bountiful yield. It is thus the intelligent and observing *book-farmer* avails himself of all the principles of science and the experience of others, in his practise, and the consequence is, he gets rich, while his equally industrious and economical, but ignorant neighbor continues poor.

It has been suggested to use this farm as a site for an agricultural school, and it must be confessed, no more appropriate place could be selected for such a praiseworthy object. It is accessible from every portion of the Eastern United States; and the diversity of its soil, and the convenience for procuring every kind of marine and inland manures, would admit of almost every variety of experiment. The scenery, too, would not be without its beneficial effect on the yet unformed and expanding mind. The happy commingling of hill and dale; of forest and cultivated fields; of extensive meadows, and the chequered patches of almost every species of grains, roots, and vegetables, would afford a useful and delightful study to the enquiring student.

From the summit of the hill on the eastern extremity of the island near the site of the Pavilion, the eye ranges southward over this highland, which falls off gracefully on either side to the cultivated vales below. A thread of silver marks out the channel that separates it from the opposite shore on the right. Near by, on the long, low, level margin of the water, a few scattered hamlets indicate the ancient settlement of Communipaw, where the first Dutch burghers that emigrated to the new world, hoped to found a commercial capital, that in after ages was to eclipse their favorite Amsterdam at home. Still further on is the little peninsula, jutting into the bay, now known by the ambitious cognomen of Jersey City. Then comes the more elevated and picturesque promontory of Hoboken and the Elysian fields, which fancy paints yet more delightful than the charming reality, because invisible. Behind it, Weehawken lifts its poetic brow; and far beyond, where the eye begins to mingle the misty things of physical existence, with the vivid pencillings of the imagination, the

Kloster Bergs or Palisadoes rear their lofty heads of eternal rock. The bold river from the North, through which the ardent and adventurous Hudson vainly hoped to penetrate the Pacific, but which already bears on its majestic breast, as rich a freight as if it connected distant oceans, bounds on the eastern shore, the ancient and lovely island of Mannahatta. The vigorous metropolis of a youthful, giant empire, with its undefined and countless forms of architectural beauty, utility and strength; and its mazy forests of masts, stretch along on either side as far as the eye can reach; while the intervening bay, studded with the winged messengers of the deep, affords a richness, variety and magnificence of grouping, the world can no where rival. The East River, the highway to the busy land of the pilgrims, is skirted by the Wallabout and Brooklyn Heights; and yet nearer, lies the broad avenue that leads to the boundless Atlantic and the wide world beyond; while at your feet, New-Brighton and the Quarantine repose in graceful beauty, like twin swans upon the dimpling waters.

Wheat Sheaf Farm, though not as elevated and nearly seven miles to the south-west, enjoys a delightful prospect. The low line of Sandy Hook, the hills of the Nevisink, and the inlets to the towns of Shrewsbury and Middletown, lie remotely, but in full view to the south. The east looks over a small sandy peninsula, that hems in a mimic bay, to Coney Island and Rockaway, and the illimitable ocean beyond. To the left the vision extends over well-cultivated fields, and picturesque scenes of beautiful villas and quiet, tasteful country houses, till it rests on the bold summit which is surmounted by the dilapidated fortress, known as Fort Tompkins.

'Twas amid such scenery of abrupt mountains and deepened glens, on the rugged soil of the sea-girt isles and promontories, the hardy, enterprising, bold, and indomitable Greeks were reared; and no fitter place could be selected as the early home of the youthful student of American Agriculture.

Raising Silk.

Morus Multicaulis.—It has been suggested that our remarks on the Morus Multicaulis, in our last, may be subject to some misconstruction, and to prevent any injury to the silk cause, the prospect and success of which, we have most sincerely at heart; the excitement of any ill feelings; or the provoking of any controversy, which we shall not be led into under any circumstances; we shall here on the threshhold, define our position, as the politicians say. That the Multicaulis is capable of yielding the materials for a very good silk, and in great profusion, we do not deny. There is too much evidence in this country, of the fact, to dispute it. But that it is the *best adapted* to the production of silk, we have, what we consider, sufficient evidence to the contrary, to be willing to admit. In one of the most extensive silk producing districts of this country, where the latest and best information on this subject is always to be had, it is not used at all, or only when a deficiency exists of other kinds. In different and remote latitudes and longitudes throughout the states, the intelligence is frequently reported to us, that their crop of worms have nearly all died off. To the enquiry, what leaves were used, *the reply invariably is the Multicaulis.* We have heard of no similar mortality where equal skill, care, and intelligence have been used, in feeding the varieties of the white mulberry. Charles D. Bouchet, from Lyons, in France, whose ample experience and success in this country, is attested by the award of the gold medal from the American Institute in 1836, for the superior quality of his silk, says, "the leaf of the white mulberry growing in elevated, cool, and dry places, and in a light soil, yields abundant, strong, and nice silk, of a good quality. Our best authors and practical men, who have written on the subject, as the result of chimical analysis and numerous trials with the worm, find the leaf of the large-leafed mulberry, (the Multicaulis,) furnishes the least nutrition: and the broad, thick, deep green leaf has little silky matter."

The intelligent native of China, who accompanied Dr. Parker from that country, through several of the states this season, was repeatedly asked as to the use of the Multicaulis for making silk in his own country, and his reply uniformly was, that it was well known there, but not used for this purpose; and such, so far as we are informed on the subject, is the general testimony of those who have traveled in that region. Yet all this we regard but little to the purpose, except as withdrawing so much from the alleged example of China, as affords an argument for its use, as we consider experience in this country as the only guide worth following.

Here stands the evidence on one side. For the opposite, we have no doubt 1,000 respectable witnesses can be arrayed to pronounce the Multicaulis well adapted to mak-

ing silk. We admit this united testimony, but still deny the untenableness of our position, that it is not the *best adapted* to making silk. The experience of intelligent, close-observing, practical men on this subject, is the only testimony we are willing to admit, and whenever such is offered us, continued through a series of years, in feeding simultaneously, the Multicaulis and the white, which have been grown on the same soil, and under the same circumstances, and fed during the whole time to different lots of worms, of the same kind and similarly situated; we shall be happy to publish it, but till then we must be permitted to adhere to our expressed opinions.

We make no insinuations as to the motives of those who have labored for the diffusion of the Multicaulis; no such detestable narrow-mindedness which is too much the fashion of the present day, induces us to throw a general suspicion over the *motives* of others, for though we believe the merest mercenary views have actuated many in this traffic, and the desire of money-making in their production and sale, may, innocently enough, have actuated all; yet we think the majority of those who have been, and still are, engaged in disseminating them, have been influenced by laudable and by the most patriotic motives, and such will be the most ready, when a doubt is suggested as to the correctness of their position, to examine fully the grounds on which their ideas have been founded.

There is much in the large, thick, luscious looking leaf, and the thrifty, prolific growth, to commend it to a favorable reception; but utility is our object, and if we find by experience, that there is an excess of moisture, which is peculiarly productive of disease to the worm, and a disproportionate deficiency of the resinous matter, which is essential to making silk, we ought not to hesitate in substituting for the fashionable Multicaulis, the large-leafed varieties of the white, such as the Alpine, Canton, and Asiatic. We repeat here what we before said, that when the Multicaulis is used at all, they should be planted on a dry, light soil, which will do much to reduce the proportion of water, and increase that of the resinous matter of the leaf. We have now done with this part of the subject, till we have such evidence of the incorrectness of our views as we have specified above, and such, if it is ever afforded us, we shall be most happy to lay before our readers. If we know our motives in this, and all other subjects pertaining to our journal, truth, and the best good of our common country, is the only rule of our action.

Varieties of Worms.—The best variety of these, beyond all question, is such as produce the *Pea-nut Cocoon*. These are of two colors, white, and salmon or straw color, but alike as to value. They are of moderate size, and round and blunt at each end, and indented in the middle, and very similar in shape to the pea-nut. The cocoons are not as large as some others, but exceeds every known kind in compactness, and the strength and fineness of the fibre, and the worms are peculiarly healthy and hardy to rear, and the cocoons are reeled with more ease than from any other kinds. Next to these in point of value is the Sulphur, and last of all the Mammoth White, and the Two-crop variety. The comparative average of yield of silk from each, is 20 ounces from a bushel of the Pea-nut; 16 from the Sulphur, and 12 to 14 from the White.

Preservation of the Eggs.—After the eggs are laid on paper or muslin, and hung up for a few days, till properly dry, they should be carefully packed away in some cool, dry place. It is not necessary to resort to artificial cold for preserving them, unless it is required to delay their hatching beyond the ordinary time for the appearance of the leaf in the following spring. When this is desired, they must be kept uniformly cold through the winter and spring, till wanted; the temperature not being allowed to exceed 45° or 50° Far. till required for hatching. As but a brief space of warm weather suffices to start the germinating principle in the egg, which a subsequent cold below 50° cannot prevent from progressing, it is absolutely necessary, if required to retard the eggs for successive crops through the summer, that they be packed away in time to secure this object.

A good refrigerator for this purpose, is a small box to contain the eggs, lightly nailed, so as not to prevent some access by the air, for packing in an air tight box for any considerable length of time, kills them. This is to be placed in a larger box, and completely enveloped in dry, powdered charcoal, dry saw-dust; or even fine tan-bark; having 4 to 8 inches on each side of the inner box, and the outside, to be loosely secured by nails. If this is put down when the temperature is below 32°, and safely stowed away in a dry, deep, cool cellar, where there is scarcely any circulation of air, the eggs will probably keep through the whole of the following summer. But if once opened, it must be remem-

bered, the temperature will rise and remain in the box at the elevation in the room where opened. An ice-house would be an appropriate place for exposing them, though dampness from this should be most rigidly guarded against. A niche made in the wall of a deep well, to be secured against dripping on the box, will also preserve them till wanted. Exposure below the freezing point does not injure the eggs.

Hatching.—When sure of an adequate supply of food, the eggs may be exposed to an elevated temperature, say, at first, of 63° Far., to be *gradually* augmented to 75° or 80°. From 7 to 10 days is sufficient for hatching the eggs. They should never be removed from the paper or cloth on which they are deposited, as the adhesion of the egg to the paper, enables the young worm to disengage itself more easily when hatched. A few tender leaves should be placed around the edge of the paper, for the young things to commence their labors on, and when once attached, they should be removed immediately to the feeding room. It is generally the case that a few straggling worms only hatch the first day, and when a large quantity are to be kept, these are thrown away, and those hatched on each successive day are put on shelves by themselves, so as to go through the moulting and winding at the same time; and if only a few are left after the foutrh day, they are thrown away like the first, as not worth the trouble of tending. The cocoonery or feeding room may be a chamber or garret, or any room in the house, sheds, barns, or out-buildings; though all these are objectionable, from their liability to inconveniences, which the observing person will notice in the rules that will follow. If built expressly for this purpose, it may be any shape according to the fancy of the owner. We give a brief description of two; the first on a large scale from Mr. Whitmarsh; the second from Mr. G. B. Smith, of Baltimore; the intelligence and labors of both of whom in the silk cause, entitle them to grateful commendation.

"A cheap rough building will answer, but it should be convenient and planned with reference to *ventilation*. I have one two hundred feet long by twenty-six feet wide and two stories high, which will accommodate two millions of worms. It is set on brick pillars of three feet high, except the ends, which have cellars for the leaves, and a furnace. In the floor under each frame, a board is sawed out, eighteen inches by twelve, with a strip of board for a handle. These are easily removed. The point of the roof is raised about eight inches,—making a projection of three feet, and has the appearance of a double roof. Lids are hung with leather hinges every three feet, to be opened and shut by cords. The holes in the floor being open, and those in the roof—a free circulation goes on, aided by another row of holes about midway, or even with the second floor. These are made by pressing off a board about three inches from the side. Let this space be closed with lids, which by means of buttons underneath, may be raised in a moment.

I have said that it was two stories—it is so, as far as two rows of windows make it so. The rafters are laid across for a second floor, but they are only boarded, six feet wide in the centre, and three feet at the sides, making a walk, or gallery for coming at the frames, *which must never touch the side walls*. The object of this arrangement is to have as much room as possible under one roof. A lower room is apt to contract dampness. Uprights are made of slit-work, three inches square, and as the frames are three by six feet, the uprights are six by six feet apart, with slats nailed across, and accommodate two rows of frames drawing out each way.

I have used netting, and have all my frames fitted with it; *but I do not now use it*. Netting is convenient when the worms are to be thinned out or spread on clean frames. Lay a netted frame over the worms, on which spread leaves. A sufficient number will ascend to remove to another place. The net should lay flat on the shelf. Beyond the above purpose, netting is of no use whatever. As the worms *will not all* go up when you would change them, you must gather the remainder by hand, as you would blackberries. They should never be touched by the hand if it can be avoided. The same frame, with millinet or grass cloth, drawn on at the corners, is better, and may be taken off and washed and put away for another season. Frames covered with cloth are lighter than boards and quite as cheap, and the open spaces of the cloth admit the air to the litter beneath and prevent its gathering dampness.

I have mounting frames, but were I to erect another cocoonery, I would use straw in preference. A large cocoonery requires a large number, instead of which straw may well be used.

In so large a building there should be a partition across the centre, making the rooms one hundred feet long. A room twenty-six by twenty feet should be finished off under

the roof for a hatching room, for the first week's feeding, and for millers, and should be lathed and plastered. In the cellar under each end is a furnace for hot air, made by enclosing a common box stove in a brick chamber, six inches larger than the stove, with spaces at the bottom for the admission of cold air, which is admitted into the room above by a hole in the floor of two feet square. A thermometer will be useful to indicate the changes. A plate of common salt will detect *dampness*, and one of chloride of lime will correct bad air or smell in the cocoonery. If properly cleaned it will smell of nothing but the wholesome mulberry leaves. You must not mention *Tobacco* in the presence of silk worms. In regard to this drug they show good taste; *they had rather die than smell it.*

Mr. Smith's plan is as follows:—

"Any common room may be used for the cocoonery. It ought, however, to have one or more windows on each side, and if it have a fire-place, it will be all the better for it. The second story of the house will be better for the worms than the first, though it is not so convenient for the attendants. If it be desired to fit up temporarily for the cocoonery, the following plan will answer every purpose, without the least injury to the walls, or any thing else; and after the cocoons are gathered, the shelves can be removed, and the lumber used for other purposes.

Suppose the room to be 20 feet long, and 16 feet wide. Make three trestles, such as carpenters use, out of scantling, 3 feet long, one foot high, with four legs. Set one in the middle, and one near each end of one side of the room, and lay upon them 3 plank, 16 feet long and 3 feet wide. A tin pan can be placed under each foot of the trestles, to be kept full of water to prevent ants and other vermin from getting upon the shelves. They can be obtained very cheaply at every tin-shop, and are effectual preventives of such evils. A second shelf may be placed upon the first, by fixing the trestles directly over those below, and a third, fourth, fifth and sixth in the same way. The trestles should be made to stand firmly and level, with the legs expanded, that they may act as braces to steady the range of shelves. The plank need not be nailed down, if it be an object not to injure them; but the shelves would be more steady and firm if this were done. In setting up these shelves, a space ought to be left between them and the wall, to prevent ants, &c. getting upon them from that quarter; a few inches will be sufficient. In a room of the above dimensions then, we shall have three ranges of shelves, 16 feet long, 3 feet wide, with an alley of 3 feet between each range, &c. and a space at each end, to pass freely.

If we put 6 shelves in each range, we shall have 18 shelves, 16 by 3 feet each, and these will contain 48,000 worms. The plank shelves should be covered with old newspapers or any other waste paper."

Cocoonery Statistics.—We here condense a lot of small though useful matters. Mr. S. estimates that "a worm consumes on an average one ounce of leaves during its life. The space of shelf occupied by the worms, is as follows:

During the 1st age, 1,000 worms occupy one-third of a square foot; 2d age, three-fourths do.; 3d age, 2 square feet; 4th age, 6 do; 5th age, 18 do."

About 240 cocoons average one pound, though 95 have been found to weigh as much; and Dandalo gives 360 as averaging a pound.

3,500 to 4,000 cocoons make a bushel.

100 to 120 pairs of millers are necessary to produce one ounce of eggs.

Each miller lays 300 to 500 eggs, but 330 is about the average.

An ounce of eggs contains about 39,000. If these are well saved from the best millers of the first crop, they seldom fail in producing good worms.

A bushel in the natural condition of the cocoons is heaped; when the tow is removed they are measured as grain, on a level with the measure.

The loss in feeding in Europe is estimated at 35 to 60 per cent; in this country, if care is taken, it amounts to nothing.

(*To be continued.*)

Water Rotting Hemp.

We had written for our first number, a full article on the history, cultivation, securing, dew and water rotting of hemp; but unfortunately it was mislaid till out of season. We shall therefore suspend its publication now till February; in the mean time we shall feel under obligation to any one who can furnish us with new information upon this subject, in order to make our article as complete as possible when it shall appear.

Dew rotting is pretty familiar to all hemp growers, we shall therefore pass it over for the present. At $5 per cwt., or $100 per ton, on a suitable soil, it pays as good a profit to the producer, as corn at 40 cents per

bushel. Water rotted brings about double this price, and when proper conveniences exist, costs but little more than dew rotting; but in the process, some few difficulties are to be encountered. We think the best plan decidedly, is that adopted by Mr. Olcott, at Newport, Kentucky, in vats under cover, the water in which, is kept at an equable temperature. The hemp thus gets a perfect rot at all seasons of the year, in seven or ten days, and when dried, is of a bright, greenish, flaxen color, and is considered by many, of a better quality, and appears as handsomely as the finest Russian, and brings as high a price in market.

These vats may be easily constructed and managed, and if built in a central position, by a company of planters on joint account, they would be but of small expense to each, and all in turn could be accommodated by them. Although familiar with the process, from frequently visiting Mr. Olcott's hemp factory, we could hardly make the reader understand their construction and management, without numerous drawings; it would be better, therefore, to employ an experienced and practiced hand in their construction and first management. Mr. Olcott breaks his hemp in a machine, which is moved by steam power, previous to rotting, this lessens the bulk greatly, by ridding it of most of its woody fibre; but the process is not essential to rotting in vats, and can be dispensed with where the machines do not exist.

If to be rotted in spring or river water, artificial pools or vats must be formed for this purpose, and should not be over three feet deep, otherwise the hemp is liable to an unequal rot. It will require plank placed upon it weighted down with timbers or stones, in order to keep it well under water. In a communication addressed us on this subject, in April last, Mr. Myerle recommends vats 40 feet long, 20 feet wide, and 2 feet deep, as best and the most convenient for the season, that the hemp is kept cleaner while rotting, and the hands can lay it down in the vats and take it out without getting wet, which is very important to the health of the laborer. These vats also greatly facilitate the operation, and can be fed with water and have it run off at pleasure, without endangering loss from the hemp. Mr. Savage, of Kentucky, informed us when we visited his plantation on the bank of the Ohio, that he intended to water-rot his hemp this year, in a common scow or flat boat, with holes bored in the bottom, and sunk nearly to its top in the stream, which struck us as being a very simple and effectual method.

Water-rotting in streams, requires a longer or shorter period, according to the season. In September, when the water is warm, ten days is generally snfficient; in October, about fifteen, and in December, thirty days or more. For the latitude of Kentucky, October and November are considered the best months for the operation, and perhaps is easiest done, gives more lint, and upon the whole, as good a sample as if deferred later.

Mr. Stevenson, of the Kentucky Commonwealth, was kind enough to send us a copy of his paper, in August, containing, among other communications on this subject, that of Mr. Van Sassen, of St. Petersburg, to our present minister to Russia, Colonel Todd; and sent by him for publication, to the Hon. Mr. Linn, of the U. S. Senate. During a two years' residence at St. Petersburg, we had the pleasure of being acquainted with Mr. Van S., and while there, procured the same information as he details, from the Russian hemp merchants of the interior of the Empire, where it is grown and prepared for market. We had not the opportunity of visiting those districts, nor should we think it very necessary now in order to obtain information, as we are of opinion that the best and most enlightened practice for growing and preparing hemp for market in Kentucky, is in advance at present, of that of Russia; still, as Colonel Todd has been a practical hemp grower at home, there might be some advantage, as suggested by Mr. Bufort, in his visiting the hemp districts of that empire, and making himself familiar, from his own observation, of the details there to be communicated to his countrymen at home, of growing and preparing this important agricultural product for market. We ought to be large *exporters* rather than *importers* of what we can so easily grow to an almost unlimited extent, on the fertile lands of the west.

With the duty of $40 per ton on hemp, which is secured by the tariff recently passed, and the very liberal price of $280 per ton our government seem willing to pay for the American water rotted, it is impossible our western farmers should not at once afford a supply to our own market. We respectfully ask our enlightened and enterprising readers at the south and west, to look to it that public expectation on this subject be not disappointed. A diversion of labor from some other product for this object, will produce a beneficial result in enhancing the price of the former, without diminishing the latter.

Misquotations. White Berkshires. Size of South Down Sheep.—We frequently find ourselves misquoted by different writers in the agricultural papers. For instance, "A Breeder" in the Southern Planter, at Richmond, under an article, "White Berkshires," says: "Tell me why a Berkshire should necessarily assume the dark copper color of his Siamese progenitor, which Mr. Allen asserts is the *invariable* characteristic of the genuine breed?" He then asks: "Did Mr. Allen ever see a litter of pigs from a genuine Berkshire sow, by a genuine boar, that were all of the dark rich plum color that he says *invariably* marks the genuine hog?"

We will answer this question in the Yankee method, by asking another. Where did Mr. Allen ever assert that all genuine Berkshires are *invariably* of a copper or dark rich plum color? If "A Breeder" will do us the pleasure of a call however, we can show him a very fine litter of pigs, from a "*genuine* Berkshire boar and sow," *every one* of which is a dark rich plum color, with a greater or less flecking of white or buff upon them; some also that are black, and some of a copper color, with the usual flecking, &c. As to *White* Berkshires, we think now we can give their true origin. Marshall, in his Rural Economy of Yorkshire, published at London in the year 1788, says, page 235, vol. 2, "The breed, too," (meaning that of swine in the vale of Yorkshire,) "has been totally changed. The Wold pigs were of the white, gaunt, long-legged sort, which appear to have been formerly the prevailing species throughout the kingdom. Now, the black-sandy Berkshire breed is prevalent; with a mixture, here as in other places, of the oriental species."

We suppose that the produce of these "long-legged, gaunt, white sows," which Marshall describes, from a cross of the "black-sandy Berkshire" boar, was often pure white pigs of a greatly improved form; but notwithstanding their color, and being *grade* pigs, were carelessly called Berkshire's, the same as grade animals are of the Berkshire cross, in our own country, because it happened to be the best and most popular breed, and hence the origin of all the white Berkshire's which have been imported into this country, principally from Yorkshire, and near Liverpool; a good serviceable stock animal enough, doubtless, but no better than thousands of *grade* Berkshires produced here in our own country, without the trouble and expense of importation. The English and Irish Graziers have been greatly improved by crossing with the true Berkshire, and yet they generally retain their white color, though we have occasionally seen the pigs of the Graziers come spotted like a Berkshire, notwithstanding both parents were pure white; and although we strongly suspected that they had Berkshire blood in them, yet we could never fully account for the spots with entire certainty till we lately met with Marshall.

Size of South Down Sheep.—Mr. Mark R. Cockerel asserts in the Nashville Agriculturist, that he does not believe the sheep we selected from Mr. Webb's flock in England were pure South Downs; that no animals of this breed could weigh so heavy and shear so much wool; and that they doubtless "were well crossed with the large sheep known as Cotswold, New-Leicester or Bakewell."

Does Mr. C. suppose that the numerous breeders of South Downs, would stand by at the Royal Agricultural Show, and see Mr. Webb take all the honors from them in breeding, and pocket the comfortable sum of about 500 dollars in addition for premiums, on what would be merely *grade* animals! If he does, he must have a queer idea of the *cuteness* of John Bull. We are familiar with the cross he speaks of, and so are many other Americans, and all Englishmen, and it could be detected in a moment, and would cause the person making such an exhibition, to expulsion from the society, and overwhelming disgrace. We saw roaming over the hills of Hampshire, and Berkshire especially, original South Downs, occasionally, though rarely, nearly as large as Mr. Webbs, but they were much coarser. Now we would ask, is it not within the bounds of probability, that with such material as these for a foundation, that scientific breeders in the space of 50 years or more, could so improve them by selections and good feeding, as to increase their sizes, and add to their fineness of points? If they could not, they must be dull scholars indeed, nor need they seek a foreign cross at all to effect their purpose. The British publications on sheep, in their details, have reference generally to the unimproved South Downs of the hills, and do not refer to what are considered *extra* flocks, like those of the Duke of Richmond, Messrs Ellman, Grantham, Webb and others. We do not think Blacklock much of an authority on South Down Sheep, and the main object of his mentioning them, seems to be, to place them in an unfair contrast on the high bleak hills of Scotland, with the smaller, rugged, mountain Cheviots.

We make these explanations, not for the purpose of finding fault, but to place things, so far as we are able, in their true light.

The Annual Meeting and Show of the Royal Agricultural Society, took place at Bristol, England, July 12, and continued as usual four days. The New Farmer's Journal, obligingly furnished us by its publisher, F. Crisp, Esq., contains full details of the proceedings. The weather was favorable, and it seems to have been attended by large numbers, and with an increasing interest in the show. We do not enter into particulars, as the general proceedings were quite like those we witnessed of this noble society, at its annual meeting in July, 1841, at Liverpool, and of which our readers will find a detailed account in our April No. We notice that our Minister at the Court of St. James, the Hon. Edward Everett, was present, and made one of the best speeches on the occasion. About £1400, (over $6000,) was distributed in prizes on stock and implements alone. The show of implements, seem to have greatly augmented since last year. We observe a large addition of members to the society in the month of July, and we have no doubt but they will continue to increase; thus enabling it annually to extend its usefulness. We look upon the establishment of the Royal Agricultural Society, as the most useful and important secular institution that was ever formed in England, and the one which is most calculated to add to its advance in civilization, wealth, and the amelioration of its lower classes. A similar one was formed several years since in Scotland, called the Highland Agricultural Society; and we now see that Ireland has this year followed the example of Great Britain.

ORIGINAL CORRESPONDENCE.

For the American Agriculturist.

Mr. Starr's Woburn Pigs.

Gent: I herewith send you a cut of my Woburn prize Boar, together with a description of my stock of that breed.

As there are various kinds of hogs claimed to be Woburns which differ from each other, I have been at much pains to ascertain as to the genuineness of mine, and give you some testimony on that subject. Last year I engaged Captain Morgan, master of the ship Hendrick Hudson, to go to Woburn Abbey, to procure for me a pair of pigs. He was informed by the steward of the Duke of Bedford, "that in the course of experimenting they had nearly lost the breed, and had no pigs," but one sow was pointed out as a full blood, and in pig. She was very large and very fat. I have since informed Captain M. that there had been doubts expressed as to the genuinenes of different swine claimed to be Woburns. His reply was, "you need not fear about that, you have the real Woburns, and they correspond to those I saw at the Abbey."

Mr. Rufus Rowe, a butcher in Fulton market, was well acquainted with the breed in England, and considers them superior to any other. He informs me that mine are undoubtedly the pure breed.

I have seen a cut in the Complete Grazier, (published in London in 1816,) representing a prize sow of the Duke of Bedford, which is almost a perfect likeness of a sow in my possession. I could multiply evidences on the subject, but will give you some of the characteristics of my Woburns.

Their size is large enough to satisfy any one who goes in for any thing short of a Kenilworth. They are very lengthy, and have a good ham; extremely fine in the hair and the bone, and with a skin thinner than any other hog I have seen opened. The color is white and black. The appearance of the skin and hair is much like some fine China's I have seen, and considering their habits and the ease with which they keep, and the fineness of their flesh, I should call them the China on a large scale. Their intestines are very small, and the whole side very thick when well fattened. During the season of grass, with any thing like decent pasture, they will thrive with fair grazing. I have a barrow which I expect to make weigh next fall 600 pounds, which has been gaining flesh all summer on very moderate fare in the way of grass, with no other feed. The crosses of this breed have given in this region universal satisfaction, and I am constantly hearing boasts from farmers of their fine Woburns. Last fall I weighed a half blood from a common sow the day he was six months old, and found he weighed 224 pounds; his fare was house slop, (no milk) with uncooked indian meal.

Those who had the most inferior pigs stated that on slaughtering, the weights far exceeded their expectations, the intestines being unusually small.

The late Henry Degroot, Esq. of Bound-Brook, in this state, brought from England some years since two pair of pigs of this breed, knowing at the time their name, one pair of which was purchased by Mr. Townsend, of Connecticut, who gave them the

name of Norfolk Thin Rind, and who has been celebrated in that state for the excellence of his thin rind hogs. The people of Bound-Brook and that region to this day boast of the superiority of their hogs which they trace back to the stock of Mr. D.

I have crossed my large boar with two Berkshire sows, and their pigs are exceedingly beautiful and promising. I have also the promise in a few days of a litter from a full blood China, by the same boar.

Those who are desirous of procuring any of the above described pigs can address me at Mendham, Morris Co., N. J.

CHARLES STARR, JR.

August, 1842.

For prices and other particulars of the above, see our last number. We have no doubt they are a valuable breed of swine, and well calculated to improve the common breeds of this country.

We acknowledge, from an esteemed correspondent, a long and valuable letter, and trust the extracts we give below from it, will not compromit his desire of remaining incog., while they cannot fail to interest and instruct our readers. He has taken our remarks on the subject of mixing fine and coarse wool sheep rather too literally. We would by no means recommend a cross of the Saxon, Rambouillet, or indeed any of the finer, high bred varieties of the Merino family with the Leicester, or any Long-wooled sheep. What we had in our eye for a cross was, the coarser and more common sheep, known as such among the farmers under the general name of Merino: an animal without pedigree, and perhaps not of perfect purity of blood. We quoted Lord Western's ill success, as indirectly expressing our own opinion upon extremes: that is, against uniting the pure high breeds with such as are almost directly opposite breeds of animals. The South Down would undoubtedly be best as the "middle link," recommended by our correspondent to cross either way, as has been often proved by breeders.

I have, moreover, come to the conclusion that controversy with any but the *liberal*, the *candid*, and the *honest* inquirer, is sad waste of truth and common sense, to say nothing of one's loss in time, patience, and good temper—for it seems to me a man can hardly jot down the simplest suggestion that it does not call up and rouse into action the private interests, the prejudice, the self-love, the pride of opinion, or the ignorant garrulity, if not vulgar abuse of some one or more subscribers of the journal in which you may happen to have recorded your opinion. These readers put their own narrow interpretation on your expressions, and then fight you in a half bushel, declaring such is your own ground and on such you must stand or fall. I would, there were some law of nature confining the compass of the mind to objects within the limits of its own powers of comprehension, and not allowing it to strain at a camel when it can scarce swallow a gnat. "Well," you may ask, "how is all this to be avoided?" By the efficiency of the Editor, who should be a *gentleman in feeling;* and possessed of such independence, discrimination, good sound sense, judgment, and that *practical knowledge* of his subject as not to allow his contributors to be hawked at by every "kite that would fain be a tercel gentle," as honest Adam Woodcock has it; and pounced upon by every "gled" that may chance to be on the wing. Of late I have seen too much of that. I think with you that an editor has something more to do than set still while his printer is busy putting in type the abuse that he has thus sanctioned, or promulgating the misconceptions of some hot-headed, prejudiced antagonist, who writes rather to protect his dollar and cent interest, than with any view to elicit truths and facts, and attributes to another his own selfish, miserable motives of action, incapable of comprehending the love of truth for its own sake, or the desire of advancing science as a general good.

"Saxon Sheep" is the very best article Mr. Grove has written; it courts no controversy, for it is based on experience and knowledge, and is liable to no objections on the part of other breeders. Mr. Hepburn's letter is in the proper spirit, and at once proves the value of Agricultural periodicals. Examiner's parody on the weeds of Agriculture was a most happy thought, and a little addition would have made it a most superior essay. In graver matters than breeding sheep, I regret to believe that "L'Academie de Science," is not the very best authority; a single report, a single experiment is often the basis of new and wonderful theories—they seem to hunger and thirst for food they have not the patience and perseverance to work for, and with *some* most valuable, learned, and well-investigated scientific discovery, you will also find the crudest guessing upon other experiments. Some years since I took the trouble to copy out the whole of the paper read before that body on the influence to be exercised in determining the sex of future progeny in animals, but a little practical thinking convinced me that the exceptions were as numerous as the proofs.

My bull, last year, was low in, condition and shut up much of his time; his herd was composed of fine lusty females of his own age, and younger, full of animal vigor, yet the produce were mostly males. Again, you see some females produce males *only*, and some females only, no matter what the sire may be. "J. H. J.," was more to be trusted

in his nine years' patient investigation, than the French Academy with its hop, skip, and jump-at-conclusions.

My son's crop of Whittington wheat is again a failure—with us it is a winter wheat; a finer and better plant I never saw—it was necessary to feed it hard with sheep in the spring to counteract its vigorous growth, but it has been badly struck with the rust, and I am sorry to add, has been selected by the grain worm, who has visited this farm for the first time this season. The tea wheat, a spring crop, is *very excellent*, and for this land, gave a good yield, 30 bushels just, per acre.

My seed of the Whittington wheat was imported, and a more beautiful, large, round, fair berry I never saw; I was, however, aware that it was rather thick skinned—its growth was luxuriant and very healthy till affected with the rust; hardy, it must be, or it could not live on these cold hills—they are threshing it to day, and more miserable stuff I never saw go through the fanning-mill. I can hardly believe it to be from the same seed I sowed two years since, did I not know the care it had been grown with, and that it was kept unmixed.

In your classification, you commence with "the horse," do you mean the best *Stallion*? if so, I agree with you; but as *agriculturists*, I think we have nothing to do with your first class. The blood-horse, unless as the sire, best suited on our common mares, to get horses for the saddle and for fast wheeling; the cavalry, I presume, require a heavier, stronger horse; in England, a cross of the Cleaveland bay and Lincoln blacks, both heavy breed, are used for this service. Classes two and three certainly embrace our most useful horses.

Would not a division of our cattle into four classes, be altogether sufficient for the present state of agriculture in the United States? I think it would comprise, for a time at least, all the varieties that will be likely to predominate; a few individuals of other breeds may be introduced as matters of curiosity, but will not the Hereford, the Devon, the short horn, and their grades form the bulk of our stock? The *grades*, in my view, should supersede the native cattle, as their production would be a mere trifle more in cost, and within the reach of every farmer.

I would propose the same number of classes in sheep as you do, but here again, I would exclude the natives, or let them compete with grades in the fourth class; these latter, no matter how bred, intended to unite wool and mutton as far as practicable, should be encouraged as the farmer's sheep, while the purer animals belong more to the flock-master who would be governed in his preferences by circumstances.

Your suggestions for classing pigs, do not quite meet my views, and yet I have none that are better of my own to offer; that they should be divided into two races, the large and small, might be attended with advantage; the one a grass, the other a corn-fed animal.

I differ from you in relation to dairy products, in as much as I think in judging of butter, an especial reference should be had to the size of the dairy. A firkin of butter put down at one or two churnings, does not require the same skill as one of equal size and excellence filled from a small dairy of half a dozen cows. I should therefore class the dairies, for after all, I should expect the most critical observation and the most accurate details from the smaller dairies managed by the frugal house-wife herself.

My observation of some thirty years, and more, has led me to the conclusion that in cross-breeding, *extremes* should always be avoided; that there should be some parity in the habits, characteristics, sizes, and properties of the animals brought together, or no general symmetry would be preserved in the progeny. Lord Western's crosses of fine and coarse woolled animals, you remark, has been attended with questionable results, (though I presume *he* used the South Down and Ryland crosses)—if so, what it to be expected from so wide a cross as the Leicester and Merino! Animals wider apart in every respect could hardly be brought together; nor have I been so fortunate as yourselves in the specimens around me, until a third or fourth cross has given a decided bias in the produce to either the one breed or the other, and I have remarked that it has generally been in favor of the Long-wooled family, probably, from the first dip into that blood, destroying all hope of anything but a coarse, uneven fleece. It strikes me that if there is to be any cross-breeding at all, the South-Down is the middle link, and will unite better with either the Merino and Long-woolled breeds than the attempt to mingling the two extremes directly with each other.

It is but too true, that our farmers have yet to learn that a good agricultural periodical is worth very many dollars to them, and that their folly in not taking one, to those who are daily reaping its advantages, seems little short of *idiocy*; and yet they will pay

some shrewd Yankee a $5 bill to tell them in what time of the moon to cut Canada thistles! Notwithstanding I have the advantage of many of my neighbors, in travelling and visiting farms and farmers, and seeing what is elsewhere done, yet the information brought me at my own house by the valuable periodicals of the day is worth to me twenty times their cost: how much more valuable then must they be to those who can neither afford the time or expense of travel! For it will hardly be claimed by any, the most conceited, that they "*know it all*," and have nothing more to learn. Even should they claim the superiority of practice over theory, the *experience of a whole community* must far exceed that of *any single* individual; and it is this very practice and experience that we find offered to our consideration in these valuable agricultural papers.

Dr. Cartwright will accept our thanks for the very interesting and scientific letter which follows. The first portion of it is purely agricultural, and the latter part of it is so instructive for such as wish to make a permanent change of location to obviate hereditary predisposition to pulmonary affections, that we deem it entirely proper to insert the letter entire in our agricultural paper.

For the American Agriculturist.

Mississippi—its Products, Soil, and Climate.

NATCHES, *Sept.* 1, 1842.

GENT.—The Herba Spagna, or Italian clover, I met with, in May 1837, on the margin of the Adriatic sea. It was growing in irrigated fields, and also in the reclaimed soil of what had formerly been salt marshes. The tide water is kept off by embankments, and the surface, which was formerly overflowed by the tides, is intersected with numerous ditches. The land, thus reclaimed, is in checkers or plats of about an acre each. I observed that the ditches, separating the plats, were nearly full of water. The soil, thus reclaimed by ditches and embankments, was covered with a most luxuriant growth of Herba Spagna, standing thicker than clover or wheat, and nearly waist high in May. It differs from the Lucerne I saw growing in France, and other countries, about as much as red clover differs from white. It resembles Lucerne so much as to induce me to class it as a species or variety of that plant. The inhabitants on the Adriatic told me that they cut it nearly every month in the year—that it yields more hay than any other grass—that cattle and horses are much fonder of it than clover—that cows fed upon it give more milk and of a richer quality than when fed on any other kind of food. The plant I observed, had a tap root from one to two feet in length, running straight down into the earth. It delights in a rich, loose, moist soil. It requires three years from the seed to come to perfection, improving until eight years old and living twenty years. It is sown broadcast, but will yield more in drills. The Italians call it Herba Spagna. At Padua, I procured some of the seed, and in March 1838, sowed them on a lot of ground in Natches, which had been in Bermuda grass. The surface, after sowing, was lightly sprinkled with dry manure, which soon brought up the seed. The young plants grew finely. Many weeds soon grew up among them. As it would have been too much labor to pull the weeds up, I had both weeds and Herba Spagna mowed close to the ground. The mowing was repeated monthly. I was glad to find after every mowing, my Herba Spagna outgrow the weeds, and finally smothered them. The crop of hay it afforded the first year, was inconsiderable. But the next year, 1839, it yielded an astonishing quantity. About the latter part of February, it was knee high, and was mowed. It continued to yield a crop of hay every month until the dry hot weather set in, which put a temporary stop to its growth, the soil being too high and dry for it in such weather. In wet weather it would grow nearly a waist high in a month. My horses and cattle would leave any other kind of food, for the Herba Spagna hay, either green or dry. By the third year, 1840, the roots had penetrated the soil to the depth of 18 inches or 2 feet, and it promised to do even better than it had done, and continued to do so, until a long spell of dry weather in July and August. I spent this summer abroad. On my return I found that the Bermuda grass, which is favored by dry hot weather, had come up very thickly among the Herba Spagna, twisted itself around the neck of the root and killed a good part of it. In 1841, the Bermuda grass entirely killed it while I was again absent.

I spent two summers with my family at Biloxi, on the sea coast of Mississippi, for health. I observed on the margins of the various bays and bayous, which indent the Mississippi sea coast, a large quantity of land, similar in every respect, except in its unimproved condition, to the kind of land on which I had seen the Herba Spagna so luxuriantly growing in Italy. The land, at high tide, is partially inundated and requires nothing but embankments and ditches to make it as valuable as similar lands on the Adriatic. Embankments, some three or four feet in height, with ditches and locks to let the rain water off, would reclaim thousands and tens of thousands of acres on our gulf coast. As the soil of these unreclaimed low lands is a rich black loam, I have no doubt but that the Herba Spagna would grow finely upon it if reclaimed. It would also grow upon the higher hommoc land of that vicinity. Whether it would flourish in the sandy pine lands of the sea coast counties and the interior of Mississippi, is questionable, but worthy of a fair experiment.

The long, dry, and hot weather in this latitude kills nearly every kind of valuable grass except the Bermuda. The latter grass will not grow in the shade, and is apt to be choked by weeds and briers. The sea coast counties and the pine woods of Mississippi, are almost uninhabited, mainly for the want of grass to make hay. The lands, except on the margin of brooks and rivers, are too poor to make a sufficiency of Indian corn to supply the purposes of hay. Even on our best lands, all our experiments with the perennial fibrous rooted plants have been a failure. Timothy, orchard, herd, and blue grass, as well as red clover and the Italian rye grass, flourish well enough until our dry hot season of the year, when they are apt to die. Even when sowed in low ground and protected from the sun they cannot, in general, endure the heat and drought of our summers. A wet season they promise to do well, but a dry season kills them. Thus will it ever be with the perennial fibrous rooted plants. The grasses so valuable in higher latitudes, mostly have such roots. The Herba Spagna, however, has a root entirely different, being a long fusiform root, extending at least a foot deeper than any of the fibrous rooted grasses. The tap rooted plants, the creepers of nearly all kinds, and the repent plants, as the Bermuda grass, the strawberry, sweet potatoe, &c., flourish better in

this climate than any other kind of plant. Our cotton plant, you probably know, has a long forked fusiform root, penetrating the earth to the depth of two feet. After it gets a month old, dry weather never hurts the cotton plant. The growing crop will be short from too much wet weather, as a large portion of the "*forms*" or young bowls have fallen off.

On Ship Island, opposite Biloxi, a bank of sand, I found all the indigenous vegetation had either long tap roots, thick fleshy leaves, or were creepers and repents. Some of the repents were a hundred yards long, running on the ground, and at short intervals, taking root like a strawberry vine on a large scale. *Observing the natural growth of any country, and noting its peculiarities, is a good method of interrogating Nature.* Interrogated in this way, Nature responds that the Herba Spagna, by virtue of its long fusiform root, is well adapted to southern agriculture. These observations apply to perennials and not to annuals. Many of the latter, as Indian corn, come to maturity before the dry, hot season of the year has fully commenced. But all annuals, which do not mature early, must have long tap roots, or be repents or creepers, to do well in this country. The fibrous rooted plants, as Indian corn, as the dry season approaches, require to be *hilled up*, that is, for the earth to be drawn up around them, giving them more depth of root and making them approximate the long tap rooted plants. The latter, as cotton for instance, is injured by much or even any hilling; maize, however, has to be hilled in dry, hot weather, or it will fire and perish.

There is a repent plant called the coco, in Louisiana and Mississippi, which, instead of running on the surface of the earth, runs down into it to the depth of four or five feet, and horizontally a little under the surface, mole fashion, and at short intervals throwing up a bunch of thick, coarse grass. A better idea of this plant can be formed by calling it a subterraneous strawberry. It bears nuts under ground the size of strawberries. Their bitter taste distinguishes them from the nut grass, called sweet coco. The bitter coco grows so fast, that double the number of laborers are required to cultivate the lands infected by it. All those who, ignorant of this pernicious repent, have purchased coco lands, have paid dearly for the want of a little practical information, as they are nearly all bankrupt. Many have wisely abandoned their coco plantations. No means have been discovered of extirpating this pernicious repent when it once gets fixed in the soil. This unconquered enemy of southern agriculture, nevertheless proves the natural adaptation of the soil to the repent family of plants; while the successful cultivation of cotton, asparagus, okra, the egg plant, and tomato, which have long fusiform roots, with many lateral branches, prove that the long tap rooted plants are particularly adapted to our agriculture.

If the long tap rooted Herba Spagna succeed in the south, the sea coast counties of Mississippi, now almost uninhabited, will form the most desirable residences imaginable for all that portion of our northern brethren who are predisposed to pulmonary consumption. The flaxen-haired, blue-eyed, narrow-chested inhabitants of our northern states, who mostly die before they are one score and ten, would stand a good chance of living to be three score and ten in the sea coast counties of Mississippi. I do not include those whose lungs are already ulcerated. Such persons die sooner in the south than in the north. Those, however, who are predisposed to pulmonary diseases, or have only a beginning inflammation, may have the best hopes of health and long life, by an immediate emigration to the south. *I mean the right places in the south.* Unfortunately for such emigrants, they nearly all direct their steps to the malarious districts of the south. A severe acclimation awaits them therein, which greatly thins their numbers. The richest lands and most wealth, are found in the malarious districts of the south. But if emigrants were content to settle on poor lands, which although considered of little value here, where labor is dear and population sparse, would be esteemed as highly valuable if they lay in New England or New York, they would be entirely out of the malarious region, and in a country equally as healthy as the northern states, and not subject to pulmonary diseases. The emigrants might embark at New York or Boston with all their effects, household furniture, farming utensils and provisions, in vessels not drawing more than eight or ten feet water, and in a few weeks find themselves, vessels and cargoes, far up in the interior healthy pine region of Mississippi. They could step out of the vessels which brought them from New England or New York, upon Congress land in Mississippi, subject to entry at a dollar and a quarter per acre. The practicability of penetrating the pine woods of Mississippi in steamboats and schooners not drawing more than eight feet water, is a fact but little known. It was not until I had spent the second summer on the sea coast of Mississippi, that I was apprised of the fact myself. While residing at Biloxi, I was sent for, to see a patient about fifteen miles in the interior pine woods. After travelling on horseback in a blind path for a considerable distance through the pine wilderness, I was amazed at beholding through the pine trees, a two masted vessel with sails spread, majestically gliding through the tall pines, no water being visible. On approaching the schooner, I found it was sailing in a narrow natural canal, having perpendicular clay banks and a depth of water of thirty feet. The schooner carried an hundred tons. The captain told me he could go some twenty miles further up into the interior of the pine woods. He informed me that the bayou his vessel was in, was the Tunica Buffa, which was only one of three long natural canals called bayous in this country, leading from the bay, at the back of Biloxi, called Back Bay, into the interior pine woods some twenty miles or more, where the tide water ceased and the bayous receive large running streams of fresh water from the pine wood hills. He assured me that the bayous were nowhere less than thirty feet deep, until they extend back some twenty or twenty-five miles. Biloxi is on a peninsula as wide and as long as the peninsular tract of land between the Battery and King's Bridge, the Hudson and East rivers. Back Bay lies immediately behind Biloxi, and is from one to two miles wide and longer than the East river. Instead of expanding, like the East river, into Long Island Sound, it contracts itself into the above-mentioned natural canals. The bay is deep enough for the heaviest ships of war to float. But an oyster bank and sand bar lie at its entrance, preventing any vessel from getting into the bay from the Gulf of Mexico, which draws more than eight or ten feet of water. The bar of oyster beds and sand is about two miles wide. It is of recent formation. The oyster beds, no doubt, made the bar. It did not exist when the French, in 1699, discovered this part of Louisiana. The French vessels came into Back Bay, which, it is said, they mistook for the mouth of the Mississippi river. It looks very much like the mouth of a great river. They built a fort at its entrance. You will see the location of the fort by turning to a map of Mississippi, (marked old French fort,) but you will look in vain on the maps for a correct delineation of Back Bay or its arms, the natural canals above-mentioned.

The fact is singular, that two miles in the interior, from the very spot of earth first settled upon by Euro-

peans, in Louisiana, remains to this day, a terra incognita to our geographers and map makers. Fortunately a map of Scotland will give a pretty correct idea of the geography of this part of Mississippi. Jura and Islay isles off Cantire, represent Ship and Cat islands off the peninsula of Biloxi. Cantire and Biloxi are alike in shape, the former being the larger. Cantire is separated from the main land by the Firth of Clyde; Biloxi is separated from the main land by Back Bay. The river Clyde, on which Glasgow stands, is a good representation of the natural canal putting into Back Bay, called the Tunica Buffa, and where it receives a little river from the pine hills, some twenty miles in the interior, would afford a better situation for a large manufacturing town than the river Clyde on which Glasgow stands. Where the Tunica Buffa river falls into Tunica Buffa bayou, a fine water power could be obtained for driving any kind of machinery.

Silk could be raised in any quantities in Southern Mississippi, as the mulberry grows finely on the poorest land. Upland rice and sweet potatoes, also grow well in the pine wood soil—peas likewise. The better kinds of land and the salt marshes, if reclaimed, would no doubt afford a sufficient quantity of Herba Spagna hay to enable the inhabitants to supply the New Orleans and Mobile markets with mutton, beef, butter, &c.

At present this section of country sends nothing to those markets but fish, crabs, oysters, shrimps, turtles and wild fowl, from the waters; and venison and wild turkies from the woods. After the French discovered the mouth of the Mississippi river, they abandoned their settlement at Biloxi, and removed to the spot on which New Orleans now stands.

They transported, however, to their original settlement, a number of Gipsies, who intermarried with some of the primitive French settlers. The descendants of the Gipsies at the present time, constitute the larger portion of the inhabitants of Biloxi, Back Bay, and the above-mentioned natural canals. They are an ignorant, simple-hearted people, full of fun and frolic, but have no energy nor industry. They have neither schools nor churches; priest nor parson; physician nor surgeon; lawyer nor school-master, among them. As an evidence of their want of reflection and industry, the town of Biloxi was nearly an hundred and thirty years old before it had a wharf. The water is shoal in front of it. Schooners, sloops, boats, &c. cannot come within one or two hundred yards of the shore. The cargoes were taken and discharged on men's shoulders and partly by light perogues. A few years ago a German emigrant, at the expense of a hundred dollars, built a wharf, and broke up the occupation of the water-waders. Another blue-eyed emigrant cut up a large pine tree, which for a whole age had laid across one of the principal streets of the village. That portion of the Gipsey French living on Tunica Buffa and the bayous of the Back Bay of Biloxi, are few in numbers and far between. They cultivate a little rice, and have some good fruit trees, but the larger portion, living at Biloxi, cultivate scarcely any thing. The soil on the coast, for a mile ar two back, is barren and sandy, too much so to justify improvement for agricultural purposes. Good gardens are made by the wealthy at great expense. It is covered with live oaks, mulberry trees, magnolias, &c. Some live oaks in Biloxi are so large that the branches of a single tree form the radii of a circle more than three hundred feet in circumference. The Duke of Saxe Weimar says that the largest tree in the world is a live oak in front of M. Pradat's house in Biloxi; but the noble German is mistaken. The coast, shaded by the magnificent live oaks, magnolias, mulberries, junipers and laurels, and fanned by the cool sea breezes, is well located for summer residences. Many of the inhabitants of New Orleans have pretty villas along the coast, particularly at Biloxi, with neat bathing houses in front of the villas. On Back Bay, however, and the country in the rear of it, watered by the Tunica Buffa, and the other bayous leading into Back Bay, the soil, though in general thin and sandy on top, has a good clay foundation in reach of a two horse plough, and is consequently susceptible of indefinite improvement. The means for enriching it is immediately at hand, consisting of extensive beds of calcareous and argillacious marls. It contains many strips of rich hommoc land. It also contains great quantities of low land, exceedingly rich, but considered as valueless, in consequence of its being partially inundated by the high tides. If embankments were made and ditches cut, the whole of this low ground might be converted into luxuriant fields of Herba Spagna, or could be made to yield almost any kind of vegetation, which will grow in the south. Still deeper in the pine woods among the hills, beyond the plain watered by the bayous flowing into Back Bay, the land is said to be very poor, and I am not prepared to say whether it be susceptible of much improvement or not. Its soil is no where too poor for vines, sweet potatoes and mulberry trees. Nearly all the land in this region of country, except a little strip fronting the Gulf of Mexico, belongs to the United States government, and it is subject to entry. Vessels drawing eight or ten feet water, only can come directly to it from New-York, and at all seasons of the year, carry its products direct to New Orleans or Mobile—neither of which is more than one hundred miles by water; say thirty miles from Tunica Buffa, at the head of tide water to Biloxi, and about seventy from Biloxi through the Rigolets and the St. John Canal to New Orleans. The navigation is very safe, being protected by islands and the main land nearly all the way. I know a Gipsy Frenchman, who frequently goes from Biloxi to New Orleans in a small canoe. The waters abound with fish and fowl of nearly all descriptions. The oysters are excellent and abundant. If the oyster bank and sand bar at the mouth of Back Bay were removed, ships, drawing 30 feet water, could go in and out of Back Bay and up the natural canals into the pine woods. The indigo plant and Balmi Christi grow luxuriantly without cultivation. The sweet potatoes, of a kind called the Bermuda potatoe, and better flavored than any other kind, turn off abundantly in the poorest land. The grape, the fig and peach also, do well.

The musketoes are not troublesome, except in the vicinity of fresh water ponds. The salt marshes do not breed them. Very few are seen at Biloxi. Some of the situations on Back Bay are troubled with them. I saw none on the above-mentioned natural canals leading into Back Bay. So far from musketoes being regarded as an evil, they should be viewed as kind messengers sent to warn the agriculturist against the danger of suffering stagnant pools of impure water to be about his premises, and to caution him against the unwholesome dampness of too many shade trees around his house. In the shade it is always cool in this country. Nor is it necessary that the shade should be very thick, so as to create dampness. With the exception of four hours, from eleven to three o'clock, this climate is not hotter in the sun than summer weather in our northern states. In the shade, it is nearly always as cool as it is in the north, during the summer season. The four hours, above all ded to, might be advantageously employed in silk weaving or some in-door work, or in mental improvement. By avoiding exposure to the noonday sun, the cool night air is never injurious. Total abstinence from spiritu-

ous liquors is also as necessary to preserve health, or more so, than keeping within doors or in the shade during the hottest part of the day. The yellow fever, the scourge of our southern cities, never extends into the country. It would probably not affect our cities so much, if the houses, instead of being built adjoining one another, forming continuous lines of buildings, were built separate and apart, like the English residences in Calcutta.

When we reflect how much the world is indebted to the cotton plant for a cheap article of clothing, and how much Ireland is indebted to the potatoe plant for a cheap article of food, it is not too much to hope that the Herba Spagna may be an important agent in transmuting the present barren and almost uninhabited sea coast counties of Mississippi into rich, healthful and happy homes to a large portion of our northern brethren, who would otherwise fall victims to a lingering disease in the springtime of life. The country wants gray and blue eyes,—many blue-eyed people of the north want such a home.

I have the honor to be with great respect,
Your ob't serv't,
SAM'L. A. CARTWRIGHT, M. D.

For the American Agriculturist.

GANANOQUE, U. Canada, *Aug.* 29, 1842.

GENT.—I have some thought of changing horses for mules to do the labor on my farm. Could you inform me through your excellent paper, where I could get a good Jack to cross with our U. Canada mares, and what price I would have to pay for him.

I am, my dear sirs,
truly yours,
J. LEWIS MACDONALD.

Will some of our readers please to inform us where the above animal can be procured?—EDS.

TO CORRESPONDENTS.—Our thanks are due to F. Crisp, Esq. of the New Farmer's Journal, London, for copies of that journal, containing the proceedings of the Fourth Annual Meeting and Show of the Royal Agricultural Society of England, held at Bristol July last.

To Thomas Bates, Esq., of Kirkleavington, Yorkshire, Eng., for part 1, vol. 3. of the Journal of the Royal Ag'l. Soc. of England; also for the Annual Report of the Yorkshire Ag'l. Soc., consisting of 200 pages of highly interesting matter.

To B. L. C. Wailes, Esq., Pres't. of the Ag'l. Hort'l. and Bot. Soc. of Jefferson College, Washington, Miss., for his patriotic, sound and sensible Address before that society.

The letters of Judge Beatty and Dr. Keever, will appear in next number.

LADIES' DEPARTMENT.

For the American Agriculturist.

Autumnal Reflections.

Nothing more insensibly saddens and affects the heart, than the first impression made on us by the gradual approach of the fall of the year. A tinge of melancholy is abroad over the landscape, lately so fresh and verdant. We are taken by surprise, so imperceptible is the fading of the leaf, the increasing stillness, which has succeeded to the merry hum of insects, and the music of birds; the solemn grandeur of the yet unmolested forests; the clear, cold, unclouded heavens; the universal repose of nature, as of a weary man, who has run a race; that "sere and yellow leaf" n which we've trampled; and here, another, ah, 'tis an emblem of our own fading life. Indeed, the whole outward world, like the expiring mortal, who, but yesterday, stepped proudly, with lifted brow, and bounding pulse, has felt the cold chill of decay, and tells us but too impressively, the "very pulse of life will soon stand still." If inspired by the strong emotions which the season awakens, we leave entirely the haunts of men, solitude only imprints more deeply her thousand lessons. Vegetation, from the crisped herbage to the brilliant and mottled dyes of the trees above us; the little rivulet, which bears on its lately unspotted bosom the fallen leaves of the o'erhanging shrubs; the heavy mists of morning, beautiful in dispersing, but sad encroachers on the long, bright summer's dawn the splendid hues of the last of the floral race, lifting their gorgeous heads amidst surrounding decay: all of these, which are but some of the lineaments of the dying year, are striking monitors of the flight of time, and forewarn us of the wintry shroud, which must soon envelope all. But Christian! turn thine eye away; the brighter spring shall surely dawn again, to thy better hopes, an emblem of that resurrection morn, which shall usher in the unfading spring-time of a glorious immortality, by the tree of life which never withers, "whose leaves are for the healing of the nations," and by the crystal waters of that river, which flows on forever, through the "green pastures of the Paradise of God." Thus, when *our* youth's fair dawn, has fallen half unnoticed, into the deeper flush of life's troubled autumn, may we anticipate an end as peaceful, and a destiny as desirable. But there are other aspects in which this season presents itself, less fraught, 'tis true, with gloom to the melancholy, or with lessons of wisdom to the serious, but to the eye of philanthropy, sober autumn is always radiant in the rich and golden beauty of future promise; and the agriculturist gladly beholds the result of his toils, so long protracted in the summer's heat. A grateful joy fills his soul, that he has not spent his strength in vain.

The prospect of future abundance, from his well-stocked granary, to the inmates of his little home, has hitherto cheered him on, making hardship light to him; and many a happy scene has his fond fancy pictured, during the long, tedious day of toil, of the merry faces that will surround his festive board and his bright hearthstone, the coming winter. We shall look in vain, in the proud domains of ease and opulence, for lighter hearts than we may find in harvest-season, in field and meadow, under the plain garb and sun-burnt exterior of the farming population. The orchards are now drooping under their rich burdens, and the fields are covered with ripened grain, where not already cut, ready to be gathered in. At every turn we meet the well-filled carts of various grain and fruit, perfuming the air with its luxurious odor. Ceres, Pomona and Flora too, unite to praise the dying year. Our hedgesides and woodland scenes are again brilliant with the floral beauty, of late, in some measure withheld. The gorgeous sun-flower, (Helianthus,) the yellow foxglove, (Gerardia,) and the golden rod (Solidago, Canadensis,) impart a glowing tinge to the whole landscape, and contribute their charms to the rude, wild banks which border the little creeks and quiet streams so cheerfully fringed with the snowy blossoms of the arrow-head, (Sagittaria)—and more brilliantly beautiful, the cardinal flower, (Lobelia,) still displays her scarlet blossoms in the marshy intervals—neither should we forget the thoroughwort, (Eupatorium,) which never fails to shew itself at this season: an humble plant, lightly esteemed, perhaps, by the more scientific sons of Esculapius, but yet worthy of notice, being considered invaluable in the domestic medicine of our mater-

nal friends. Nature now seems to have tasked her powers, for one last effort, to tint the waning year with unrivalled brilliancy. The skies in the earlier part of this changing season, are clearer and more bright, and clouds less frequently cast their shadows over the world below. The artist's pallet can afford no hues as gay as those which now bedeck the meadows, and the sylvan heights which encircle them; and he aims in vain at grouping as graceful as the unstudied negligence of heaven-inspired nature. By night she pencils with her frosty fingers, and how wondrous the glories which the morn reveals over the scene recently so soft in its cheerful green. The contrast is as striking, and affects us in like manner, as does the unadorned simplicity of the fair maiden in her young and joyous beauty, and the richly decked appearing of the matured woman in her prime. We linger while we may, in the sweet and charming presence of the former, though we have our willing tribute of admiration for the more commanding beauty of the latter. We now feel sensibly, the loss of the sweet harmonies, which so lately made our fields and groves vocal with song. The parent birds, prompted by instinct, have taught their young ere this, to extend their flights, preparatory to their long migration, and the less hardy, are already on their trackless way. Rarely, indeed, do the cheerful "wood-notes wild," which so late delighted us, remind our saddened spirits of the merrier days gone by, unless aroused to a livelier emotion by the occasional melody of the feathered loiterers, which remain till the universal brown of late autumn succeeds to the transient glories of the early frosts, and wraps forest, flower and lawn in its own sombre hue, which is soon to be followed by the more chastened livery of winter. Yet in this mournful appearance of the departing season, it is animating to know that over the apparently barren earth, the enlightened husbandman has diffused the germ of another harvest for the succeeding year; that unpromising as the scene now is, nature is yet silently busy in conveying her living juices to the countless buds she has so carefully enveloped; and that what seems the grave of nature is but the cradle of a new existence. The season too is approaching, when in quiet fire-side enjoyment, our life, unlike the bright dream of summer, will seem a more real thing, and if our spirits are not as joyous, our happiness will be more substantial, and in the reciprocation of sweet, domestic sympathy, less selfish.

But there are some, we fear, who have no eye to enjoy, nor soul to appreciate, the vicissitudes of the varied year—

"The sweet approach of even, or morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds,"—

or bounteous autumn richly clad in brown and gold, yet it is surely well to study in the arrangement and operations of our seasons the love and wisdom of creation's great Author, though sometimes, on the heralding of winter, we may, with the birds, wish for the favored climes of perpetual verdure, where the eye regaled with nature's softest charms, and the ear entranced with song, like them we may enjoy only associations of unfading youth and beauty.

September, 1842. ELLA.

Preservation of Herbs.—Every diligent housekeeper should complete her stock of herbs without a moment's delay, as the frost will soon place them beyond her reach. Many of these are invaluable for the little necessities that occur from time to time, while the green plants are hoarded in the earth not to be come at till another season. When gathered and dried *in the shade*, they should be carefully packed away beyond the reach of vermin, dampness, or other injury, and the fragrant herbs should be closely sealed up in jars, air-tight boxes, or paper bags to retain their odour.

SELECTIONS.

Culture of Cotton.—There are many around us who think the surface-culture of cotton, or of crops, a new-fangled notion, and scout at the idea. All encroachments on established usages and customs are received in this very way. There are others who think it has done and will do for the north, but will not in the south. I will state one circumstance, and close by citing one fact. In 1833, I think, I planted in the same field, about twenty acres of cotton, as usual barred off and scraped. The subsequent culture was entirely with the hoe and sweep, the latter merely shaved the surface, probably to the depth of one-half to one inch; also three acres, and cultivated as was customary: plowing three times and hoeing. There was but a path of eighteen to twenty-four inches dividing. Land as near similar as could be, only the first piece had been cleared five years, and the second piece only two years; therefore, the latter should have resisted the drought best. Mr. Wm. Montgomery, my neighbor, a practical farmer of some thirty years' standing, ridiculed my notion, as I had been but recently from school. I took him into the field to look at it. He admitted that the unploughed land was the best crop, and had sustained itself the best through the season, but could not account for it. Now every gardener knows the fact, that his garden returns him a greater income than any other spot he can cultivate. The plough never enters, nor is the earth disturbed two inches from March till July. He cultivates the surface entire, having previously spaded deep and manured well. Then, if this be so in reference to raising vegetables of the top-rooted and horizontal-rooted families in the garden, may it not be well to try it elsewhere, especially as more land can be cultivated and kept cleaner?—*Western Farmer.*

A Vegetable Compass.—A correspondent has sent to the editors of the National Intelligencer, a dry-pressed specimen of the Polar Plant of the western prairies. It is a species of fern, which generally attains the height of from 10 to 16 inches, with one large flat leaf, whose plane always points to the north and south. The specimen was plucked from the prairies near Fort Gibson, west of Arkansas. It is spread profusely in large beds over all the western prairies, from the far north-west to the far south-west. It has been seen in the prairies of Wisconsin and other regions east of the Mississippi. It is never found in the forests, or in other words, out of the prairies. It has been well known to the hunters and trappers of the west, and to the officers of dragoons; but it is believed that its existence has never (at least extensively,) been made known to the world. Its plane is always in the plane of the meridian, when not disturbed by high winds or other external causes. The indications are always most accurate in the valleys, where the beds are sheltered from the winds, and where the traveler finds them arranged in parallel positions, faithfully pointing out the direction of meridian. The leaf is symmetrical, and thus there is nothing in its indications to distinguish the north from the south.—*Nat. Intel.*

Corn Stalk Sugar.

RAISING CORN FOR THE MANUFACTURE OF SUGAR.—*By Wm. Webb, of Wilmington, Del.—(Concluded from the last Number.)*

For evaporation, flat bottomed pans are recommended, made either of copper or boiler sheet iron. If the situation will admit, they should be so arranged, that the juice will run from one to the other, and thus save the trouble of lading. The lower pan should be furnished with a spout at the bottom, (not less than four inches in diameter,) by which its contents can be drawn off. The shape of these vessels should be oblong, their sides and ends sloping at angles somewhat different in each. In the upper pan where the juice first enters, the sides form an angle with a line perpendicular from the bottom of about 30°. In the lowest pan, this angle should not be less than 45°. Skimmers with rectangular, instead of circular edges, must be employed for removing scum. The syrup is brought, in the latter vessel, to about 25° by the saccharometer, when it is withdrawn into a large wooden reservoir, whose depth should be at least three feet. To finish the evaporation the Bascule pan is recommended; this is extensively used in Louisiana, and has over the kettles the advantages of completing the operation with greater rapidity and safety—of enabling the operator to carry the boiling completely to the point of granulation, and then to decant the whole charge instantaneously into the cooler; also of giving to the sryup time for depositing a heavy sediment of impurities, not otherwise separable from it, but which, on the old plan, goes forward to impair the granulation, and to discolor the sugar; and, finally, of allowing the proprietor to superintend in person the concluding and most delicate part of the manufacture: one Bascule pan being sufficient to evaporate to the granulating point, in twelve or fifteen hours, all the juice which two sets of kettles can evaporate in twenty-fours, to the point of concentration mentioned above. This pan is of a circular form, made of copper, fourteen inches deep, five and a half feet in diameter, and sixteen inches deep near the lip, or in these proportions. It is mounted over a separate furnace—is moveable upon its axis, and is furnished with a large lip, over which the whole contents may be poured into a receiver. On one side of the vessel opposite the lip is a rope or chain attached to a pulley over head, by means of which it is quickly emptied. "In using this pan, the juice is evaporated in the kettles as before, but is struck, between 25° and 28° of the Hydrometer of Baumé, into a large cistern capable of containing at least four or five hogsheads, where it cools, and deposites a thick sediment. From this reservoir, it is pumped up, from time to time, into a smaller one situated just above the Bascule pan. The operation with this apparatus is as follows: The gate attached to the reservoir of syrup is raised, and the bottom of the pan covered to the depth of four inches. A brisk fire being kindled under it, boiling soon commences; a slight scum rises, which flows down into the lip, whence it is removed by means of a hand skimmer. The striking point is ascertained as in the kettles, except that a thermometer is often made use of to learn its approach. When struck, the thermometer stands from 236° to 238°.

To assuage excessive ebullition, it is customary to throw in a small piece of lard or of butter just previous to the completion of the cooking; and at the moment of decanting the charge, notice is given to the fireman, who closes the ash-pit door to prevent the flames from rushing up into the boiling apartment, to the inconvenience of the operator, who is stationed upon the rim of the furnace by the side of the pan. Immediately on its being discharged, it is suffered to fall back to its place, and the gate of the reservoirs is lifted as soon as possible, in order to cover the bottom of the pan before it becomes too hot from the action of the flame.

The time required to perform the operation varies from twenty to thirty minutes, and the result is a highly improved sugar, with the estimated gain of one hogshead in fourteen over the old method."

Dutrone found, by experiment, that the quantity of matter which unites the most favourable circumstances for crystalizing the sugar, is from fifteen to sixteen cubic feet; and it was from this knowledge, that he regulated the form and dimensions of the cases about to be described. He made many trials of cases differently shaped at bottom, and ultimately fixed upon the following, as most convenient and effective. The crystalizing case is made of wood, and ought to be five feet long and three feet wide. Its bottom is formed of two planes (like a trough) the uniting of which forms a channel. Along this channel twelve or fifteen holes, an inch in diameter, are bored for the molasses to drain through; the depths of the case is nine inches at the side, increasing towards the channel, where it is fifteen inches. When syrup is poured into these cases the holes are stopped with plugs; after it has crystalized, these are removed, and the sugar becomes drained. The rooms in which the operations of crystalizing and draining, or curing, are carried on, should be kept at an even temperature of about 80° F.

Enough has been said to enable any one so disposed to manufacture sugar from Maize, either on a large or small scale. As to the profits of the business, I shall make no positive assertions; experience on the subject is yet too limited to warrant them; and as all the facts in relation to it are now before the public, every one interested can draw his own conclusions. It is said by those acquainted with the cultivation of the cane, that that business cannot be carried on profitably on less than one hundred acres in crop, and that attempts on a small scale will be certain to fail with a great loss of time and labor. How far this may be applicable to corn, remains to be seen.

I will only add in conclusion, that whether or no sugar from the corn-stalk may soon become an article of profitable export—its manufacture in the simplest form will enable every family to supply themselves with this article for common use, now become so much a necessary of life, and thus save a considerable bill of expense yearly paid for foreign sugars.

THE BEE.—Providence, that delights in spreading benificence as well as beauty over all creation, has wisely formed the bee as an humble but active and untiring agent, in gathering up for the most important purposes, and converting to the most valuable use, the scraps and fragments of nature which would otherwise be scattered by the "viewless winds," and spread through the "ambient air." She has adorned the song of the poet, pointed the tale of the moralist, and furnished food to the hungry in the desert. Virgil calls the bee a ray of the divinity; Plutarch pronounced her a magazine of virtues; Quintilian asserts that she is the greatest of geometricians; and Watts, by calling in poetry to the aid of morality, has rendered her figure the means of interest, improvement, and delight to many a youthful mind. Philosophy has stooped to examine her habits and to watch over her haunts; she has presented the models of science and called forth the attention of scientific men; by her the husbandman has been cheered when sitting in his cottage garden, in his evening reflections on his day of toil; and in whatever light she may be viewed, there is none who can declar that he has no interest in her ways.

REVIEW OF BOOKS.

Antique System of Husbandry

"Foore Bookes of Husbandrie, collected by M. Conradus Heresbachius, Counsellor to the hygh and mightie Prince, the Duke of Cleue; conteyning the whole arte and trade of Husbandrie, with the antiquity and commendation thereof. Newly Englished and increased by Barnabe Googe, Esquire. Genesis 3. 19,—In the sweate of thy face shalt thou eate thy bread, tyll thou be turned agayne into the ground, for out of it wast thou taken: yea, dust thou art, and to dust shalt thou return. At London, printed for Iohn Wight, 1578."

For the perusal of this relic of the olden black letter times, we are indebted to our friend, the Rev. J. O. Choules, whose zeal for the cause of agriculture, and taste for whatever is rare and recherché, has prompted him to collect and preserve one of the best selections of valuable literary antiques on this subject, possessed in this city. As indicated in our last, our object in referring to this work, is to afford our readers some choice specimens of the extremes of truth and error; sense and nonsense; just observation, accurate judgment, and nice discrimination, combined with a wholesale admission of the merest figments of the brain, the confident belief of the most preposterous conceptions, and the indiscriminate acceptance of the most absurd legendary superstitions, which characterise the old writers. The style of our author is clear, concise and comprehensive, and of classical purity; and in brushing away for a moment some of the cobwebs that time hath allowed to cluster before the furrowed, yet benignant and placid visage of this choice old spirit, and shaking off some of the ancient dust that sanctifies, rather than defaces his venerable brow, we trust we shall afford both entertainment and instruction to our readers. They will not fail to perceive the advantage they possess over their ancient fellows of this time honored craft. When they look for instruction to the writings of the present day, they are not put off with a medley, where the good and bad are so mixed up, that the corn can hardly be winnowed from the chaff; for they know whatever will not bear the test of fair experiment, has been discarded from the principles of those who presume to act as guides. Without further comment, we will proceed to make such extracts as our brief limits afford.

After a eulogium on the usefulness, dignity and happiness of rural life, fortified by such authority as Nestor, Socrates, Xenophon, Lucullus, Scipio, Cicero and others; his first proposition is that "the maisters foote is the best doung for the feelde;" or as the modern maxim is, the master's eye (overlooking his men,) does the most work—a rule that has been orthodox since the first day Adam was driven from the Garden of Eden, and will be while the human race endure. His next, sustained by Cato, is that "a good husband must rather be a seller than a byer;" which is equally applicable to all times and places. A third proposition is that "an euil garden, betokeneth an il huswife;" which is as true now as 300 years ago, for a notable housewife will see to it if her husband does not, that the kitchen garden, herbarium, and flower stands, are well supplied from this store-house of goodly things.

He quotes for the edification of the literary farmer, "from the Ermite Sainct Antoine, who says, the whole world serued him for bookes, as a well furnished library, in which he always read the wonderful workmanship of God."

The indications of good soil are clearly pointed out by the location and appearance, and the natural growth of vegetation. Luxuriant "Bulrushes, Thistles, Threeleaued Grass, Danewort, Brambles, Blackthorne, and such like as neuer grow but in good ground," shews where the good, but neglected land lies, in all ages and climes. But annexed we have a spice of gullibility that Munchausen would envy in a reader. "Under the North Pole it is reported the grounde is so fertill, that they sowe *in the morning and reape at noone.*" The custom of "planting in Barbarie, under the Date the Olive, under the Olive the Figge, under the Figge the Pomegranate, and under it the Vine; under the Vine they sowe Wheate, and under Wheat, Pulse, all prospering under the other's shadow, and yeeldyng their fruite the same yeere;" we know not whether taken in a limited sense, it be true or false. It is likely however when they find an oasis in that arid clime, fed by some spring or rippling stream, they cluster the whole variety of their crops, and the piercing rays of the torrid sun, afford sufficient heat to mature them all.

He specifies "*Three sorts of Doung*; the first of Poultrie, the next Human, the third of Cattell. Man's urine, being three moneths kept and poured upon the rootes of Apple trees and vines, bringeth greate fruitfulnesse to the trees, and yeeldethe a pleasante fruite. Old doung is best for corne and new for meddow. What time so ever it be applied to the ground, you must look that *the winde be westerly, and the moone in the wane.*" *Lime and marl* do not appear to have been used in our author's time in England, except in parts of Sussex and Kent, but he refers to its application elsewhere with great particularity.

"The Germans, besides sundry other sorts of enriching of their grounds, do instead of dung, cast upon it a kind of pith and fatness of the earth: (Pliny counts it to be first devised in England and France,) called *Marga*, as it were the fat of the earth: but I rather think it to be the invention of the Germans, with whom yet both the name and the use is retained: it is gotten in deep pits, but not alike in all soils. The part of France that lies upon the Maase doth show a sandy kind of marl, differing from the fat marl of Germany, but of the same quality: which carried upon the sea in vessels, is sold as a great merchandize. In some places the scouring of ponds and ditches is used, to the great enriching of the ground, in the mountainy and barren grounds. In some countries they make their land very fruitful with laying on of chalk, (one form of carbonate of lime,) as Pliny testifieth of the Burgundians, and the Gasgoines, and in Germany in our days, this manner of mending of ground is common. But long use of it, in the end brings the ground to be stark nought, whereby the common people have a speech, that ground enriched with chalk makes a rich father, and a beggarly son. A little lower, not far from the Maase, in the country of Lyege, they mend their land with a kind of slate stone, which cast upon the ground doth moulder away, and makes the ground fatter. In Lombardy they like so well the use of ashes, as they esteem it far above any dung, thinking dung not meet to be used for the unwholesomeness thereof. Columella writeth, that his uncle was wont to mend sandy and gravelly grounds with chalk, and chalky and hard grounds with gravel and sand, whereby he had always good income. So do I think that river land by overflowings, and fast ground with mud mingled with sand and gravel, will be made much better."

In tillage, he says, "it is not needful to stir a gravelly and light ground as often as the stiffe ground; yet we find that land, the oftener it is stirred the better it bears." He speaks of the stupid mode adopted by some of the Germans of recent importation in our own

country, "who yoke their cattell by the hornes, whereat the oxen are so greeued, that they scarcely race the upper part of the earth." This method is practised to no inconsiderable extent by the descendants of the French on this continent at the present day. The free use of the rake or *harrow* and the *roller*, are strongly urged.

The waxing, waning, and fulling of the moon, and *the course of the wind*, has much to do with the directions in sowing and planting, which are given with great caution. The use of saltpetre with certain kinds of seed when sown, is shown to be a practice of the ancient Greeks. The origin of Trefoil is given from Media, and its antiquity established from Columella, who noting well its great luxuriance, asserts that "an acre will fynde three horses for a yeare."

"*Of hempe*, there two kinds, the male that is without floure and beareth a seed of many colors, and the female that, to recompense her barrenness, hath a white floure. It loveth a rich ground, well dounged and watered, and deep plowed; it is naughty sowing it in rainy weather. The thicker you sow it the tenderer it will be, and therefore some sow it thrice, though some appoint six seeds for a foote. When the seed is ripe it is pulled and made up into bundles, laid in the sun for three or four days, afterwards laid in water with weights upon it for eight or ten days, till the rhind wax loose, then dried in the sun, then broken in the brake, then combed."

The crops cultivated are similar to our modern ones, with the addition of several strange names; "wheat, rye, barley, millet, zea, Far. adoreum, oats, buck or beech-wheat, panicle, kyse, sesamun, pulse, beans, pease, lyntels, chyche, cicercula, tares, lupins, fenngreche, medica (a trefoil), cytisus, sperie," &c., &c.

Oats, though esteemed nought by Virgil, and weeds by Pliny, were even then much used in France for provender, and in Germany for food. In England, too, they were used occasionally for both food and drink, and Theophrastus says "it is not daungerous in the choyce of its grounde, but groweth like a good fellow in every place where no seed else will grow."

The cradle for cutting grain even then, was used to some extent, and the reaping machine was in successful operation, for Palladius describes a "shorter way to be doone with the oxe that shall in short time cut down all that groweth; woont to be used in Fraunce. The devise was a lowe kind of carre with a couple of wheeles, and the frunt armed with sharpe sickles which trick forced by the beaste in the corne, did cut downe al before it." In hot weather he recommends plowing all night, thereby turning in all the dew and avoiding the heat of the sun. We object to this for man or beast, but would substitute from daylight till 10 A. M., and from 3 or 4 P. M., till twilight again.

Roots scarcely entered into their estimate of crops. The introduction of these into modern agriculture, has probably doubled the crops of Europe, within forty years, where cultivated.

For the Flower Garden, a great variety of minute directions are given, and it must be allowed if the plan detailed by our author was fully carried out, all the comforts, delicacies, and luxuries of vegetables, fruits, and flowers were enjoyed by the better class of those times, equally with the most tasteful and luxurious of the moderns.

The remedies for caterpillars, insects &c., are similar to several employed by ourselves, mixed up with many absurdities. Burning brimstone and stalks of garlick, juice of wormwood, lime and soot were preventives then and are so now.

The orchard was ordered with great particularity and care. The fanciful notion of sympathy, or "a naturall freendshippe and loue betwixt certayne trees," and their antipathies are particularly noted, as well as all the modes of propogating, budding, grafting, and cultivating are specified—all fruits have their due share of attention and are specified with sufficient minuteness, but the *vine* seems to claim the most particular attention. Sixteen close pages, show the estimation in which it was held in England, and this long description seemed requisite to give to this fruitful subject, its lawful honors, for even there it was esteemed worthy "among all trees and plants to challenge, by good rights, the Souereigntie." Noah has the credit of its discovery and its importance in all time since, is fully chronicled; and Cato, Varro, and Columella are cited as raising 700 and "Seneca 1000 gallondes of wine on an acre." The custom of manuring vineyards with the trimmings of the vines, is shown to be at least as old as our author, and may have descended from the remotest antiquity. The lighter kinds of land is preferred for it, as

> "Dame Ceres ioyes in heauie ground,
> And Bacchus in the light;"

the flint, by general consent, being considered a friend to the vine.

The forest trees, in all their useful, though in Europe, limited variety, are enumerated, with their uses, modes of planting, and the beauty and general utility derivable therefrom. These complete the second book on gardening and trees; the first, being occupied entirely with general principles, pastures, arable ground and tillage.

The 3rd. Book "entreatying of Cattell" begins with *the horse*, which is minutely described, the result of which is, that "the hole bodie should be so framed, as it bee large, hye, liuely, sprited and well trussed. Some horsemen would have their horse limmed after the proporcion of divers beasts, as to have the head and leggs of a stagge, the eares and tayle of a fox, the neck of a swanne, the brest of a Lion, the buttocks of a femayle, and the feete of an asse. His tayle would bee longe, bristly and curled, the length whereof, is not only a beautie, but also a great commoditie to hym to beat away flies; yet some delight to have them curtailed, specially if they bee broad buttockt."

In soils and plants and trees, the lore and practice of ancient times, seems not to have partaken so much of the marvellous, yet through the whole of their ideas their was manifest a strain of the fanciful, of which the most illiterate of modern times are hardly susceptible. But no sooner did they come in contact with the things of life, than a strange phantasie seemed to possess them. All was magic and witchcraft, so far as they were concerned. A spell seemed to hang over their very existence, and sprites, fairies and hobgoblins ruled the whole race of animated existence. Witness the "conceauing of the *mare* with her own feruent desire, and bringing foorth after the manner of byrdes. In Spaine, *mares* have conceived with the wind" (of which Addison makes notable mention, in describing the farthingales of the modish cockneyess, not dissimilar to the bustles of the present day,) "and brought up their colts, but *the colts have not lived above three yeres*," For choice and novel directions for controlling the sex of the progeny, and its indication in its incipiency, we must refer the curious to the work itself.

The *Asse* has his due share of attention, and the habits of this dandy beast seem not to have altered much since the days of his ancestors. His daintiness of the water, like that of the feline tribe, has an ample

cause assigned. "She dare in no wise come nere it, no not to touch it with her foote, neither will she drinke in any strange water, where she may goe and stand drie foote. In drinking they scarcely touch the water with their lippes, for feare of wetting their goodly eares, as is thought. They are troubled with fearful dreames in their sleepe, [we should judge as much from the infernal braying they frequently make when waking up;] and delight to be lodged in wide roomes. The Moile will cease striking and kicking if you use to giue them wine;" an economical mode of reforming these amiable hybrids, which if generally adopted, our western breeders will see the necessity of increasing their vineyards in proportion to their stock.

"The *Camell*, though regarding his blood, and lying neither with sister or mother; yet of the female camell and the wild boar of Bactria is engendered the camell with twoo roomps upon the backe."

The dignity of the ancient family of the Bovine race, is specially vindicated by our author. "Hesiodus the grauest authour of our profession, affirmeth that the famelie doeth consist of the housebande, the wife and the Oxe. Aristotle in his polliticks and economickes saies, he was alwaies in honour and estimation, and Italie first took its name from the beautie and fertilitie of heifars, whence Hercules pursued the noble bull Italus. This is the cheefe companion of man in his labours, and the trustiest seruant of the Goddess Ceres. Moreover of a rotten steere are engendered the sweet bees the mothers of honie."

Forms. "The most comely, have these properties; large, well knit and sound lims, a long, a large and deepe side bodie, blacke horned, though in color there is no great matter." Varros description is not bad for a modern ox—"broad forehead, great eyed and black, his chawes to be large and wide, his lippes blackish, his ears rough and hairy, his neck well brauned and thick, his dewlaps large and hanging doune to his knees, his shoulders broad, *his hide not hard and stubborn in feeling, his belly deep, his legs well set and full of sinews and straight, rather short than long, the better to sustain the weight of his body, his knees straight and great, his feet one far from the other, not broad or turning in, but easily spreading, the hair of all his body thick and short,* his tail long and big haired

Wine is reccommended for taming the steers, "and the oxen waxe sooner fatte by washing them with warm water, and by cutting their skinnes and blowing winde into their bellies with a reede." Great cleanliness and care of working cattle is properly enjoined, and a caution insisted on to remove the diseased animal from the herd, "lest he infect the whole flock and you impute that to the wrath of God, as many fools doe, which happeneth through your owne beastlinesse." Twenty pages are devoted to the description and diseases of this useful beast, though we opine our readers would thank us little for details of remedies as outré as then practised, and here we must conclude our present notice of our very pleasant and profitable colloquist, with the hope of renewing his acquaintance in our next.

EDITOR'S TABLE.

Fair of the American Institute.—We trust our readers will not forget the splendid fair that is to be held by this friend to American industry, during the present month. We give the order of arrangements below, and call on all the lovers of fine stock, fine vegetable products, splendid American manufactures, and brilliant speeches, not to let this opportunity pass unimproved, for gratifying their just and patriotic taste in such matters.

Arrangements.—Friday and Saturday, October 7th and 8th, Receiving Days for Contributors for Premiums.

Monday, October 10th, Garden will open to the public at 12 M. At half past 7 o'clock, P. M. an Address in the Saloon by one of the Vice-Presidents of the Institute.

Tuesday, October 11th, an Address at half past 7 o'clock, in the Saloon, by William B. McClay, Esq.

Wednesday, October 12th, Ploughing Match and testing of Ploughs, at East New-York. An Address from the Rev. J. O. Choules, a member of the Board of Agriculture. Display of Fireworks from the Garden.

Thursday, October 13th, Convention of the friends of Home Industry at the New York Lyceum of Natural History, opposite Niblo's Garden, 11 A. M.

Friday, October 14th, Convention continued.

Monday, October 17th, Entries of Cattle at the Repository, rear of City Hall in the Park.

Tuesday, October 18th, making Catalogue of Cattle—Nautical Exhibition.

Wednesday, October 19th, Cattle Exhibition—they must be on the ground by 9 A. M.—Examination by Judges.

Thursday, October 20th, last day of Cattle Exhibition—Anniversary Address by the Hon. H. G. O. Colby, of New Bedford, Mass., half past 7 P. M. An Ode composed for the occasion, will be sung by the Tabernacle Choir of Music.

Friday, October 21st, Sale of Cattle at 10 A. M.

Saturday, October 22d, Closing Address and Award of Premiums announced.—Band of Music.

N. B. Several other Addresses will be delivered during the Fair in the Saloon, commencing at half past 7 o'clock, P. M.

Directory for Fairs in 1842.

STATE AGRICULTURAL SOCIETIES.

Rhode Island—Fair at Pawtuxet, Sept. 28.

Alabama—Henry W. Collier, Pres't.; M. D. J. Slade, Cor. Sec'ry.

NEW-YORK COUNTY SOCIETIES.

Cayuga—J. M. Sherwood, Pres't; W. Richardson, Sec'ry; Fair at Auburn Oct. 12, 13.

Columbia—Wm. B. Ludlow, Pres't; J. McGifford, Sec'ry. Fair at Hudson, Oct. 11.

Chemung—A. J. Wynkoop, Cor. Sec'ry. Fair at Fairport, Oct. 19.

Clinton—Z. C. Platt, Pres't; Jacob H. Holt, Cor. Sec'ry.

Cortland—D. Hibbard, Pres't; A. Rice, Cor. Sec'ry. Fair at Homer, Oct. 5.

Dutchess—Geo. Kneeland, Sec'ry. Fair at Washington, Oct. 5.

Greene—A. Van Bergen, Pres't; A. Marks, Sec'ry.

Jefferson—A. Ely, Sec'ry; Fair at Watertown, Sept. 15.

Montgomery—Fair Oct. 11, 12.

Niagara—Wm. A. Townsend, Pres't; Wm. Parsons, Cor. Sec'ry. Fair at Lockport, Oct. 6, 7.

Oswego—Orville Robinson, Pres't: S. Y. Baldwin, Cor. Sec'ry. Fair at Mexico, Oct. 5.

Queens—E. Lawrence, Pres't; A. G. Carll, Cor. Sec'ry.

Saratoga—H. Gardner, Pres't: J. A. Corey, Sec'ry. Fair at Ballston Oct. 4.

Steuben—Z. A. Leland, Bath, Cor. Sec'ry.

St. Lawrence—J. S. Russell, Cor. Sec'ry. Fair at Canton, Sept. 14.

Washington—J. Savage, Pres't; Asa Fitch, Jr. Sec'ry. Fair at Salem, Oct. 11.

CONNECTICUT SOCIETIES.

Hartford—S. Olmsted, Pres't; N. Johnson, Cor. Sec'ry. Fair at Hartford, Oct. 4, 5, 6. Cattle Show and Ploughing Match Oct. 7.

Litchfield—Fair at Litchfield, Sept. 28, 29.

Enfield, Somers, Ellington and East Windsor—B. Pinney, Pres't; S. Bartlett, Sec'ry. Fair at Enfield, Oct. 12.

MASSACHUSETTS COUNTY SOCIETIES.

Housatonic—Fair at Great Barrington, Sept. 28, 29.

Essex—Fair at Andover, Sept. 28.

MARYLAND.

Prince George's Society—Annual meetings held in Upper Marlborough, in November. Governor Sprigg, President; R. Bowie, Sec'y; T. F. Bowie, Cor. Sec'y. Their address Upper Marlborough.

MICHIGAN COUNTY SOCIETIES.

Manroe—Fair at Monroe, Sept. 28.

OHIO COUNTY SOCIETIES.

Seneca—R. G. Pennington, Sec'y. Fair at Tiffin, in October.

Hamilton—J. Mahard, President. Fair at Carthage, Sept. 14, 15.

ILLINOIS SOCIETIES.

Farmer's Ag. Society of the Upper Mississippi—T. C. Legate, President; T. Melville, Sec'y. Fair at Galena, Oct. 5, 6.

Union Society—J. T. Gifford, Pres't; J. S. Wright, Sec'y. Fair at Aurora, Oct. 19.

MISSOURI COUNTY SOCIETIES.

St. Louis—Wm. C. Carr, St. Louis, Pres't; P. Gould, St. Louis, Sec'y. Fair at St. Louis, Oct. 18.

CANADA SOCIETIES.

Gore—Fair at Dundas, Oct. 13.

Northumberland—Fair at Grafton, Oct. 12.

Durham—Fair at Bowmanville, Oct. 18.

Home—E. W. Thompson, President; G. B. Wells, Sec'y. Fair at Toronto, Oct. 12.

DISINTERESTEDNESS—*The South-western Farmer.*—The senior editor of this paper feels under many obligations to the South-western Farmer, published at Raymond, Mississippi, for its article, page 167, on Disinterestedness, and will not only express his own thanks particularly, for it, but add, that it comes in good time for the public. We feel grateful that gentlemen at that distance, with whom we are not only personally unacquainted, but never even had a word of correspondence, should volunteer so handsomely in our defence, and give us credit for entertaining feelings, which notwithstanding the carpings of a few, we trust will ever actuate our movements. We would suggest to such papers as have given currency to impressions of improper motives on the part of others, either by their correspondents or otherwise, whether they had not better copy the article for the benefit of some of their correspondents.

The S. W. Far., is a handsome quarto of 8 pages, published weekly at three dollars per annum, edited by Messrs. N. G. Forth and John Jenkins, and is one of the most spirited, varied, and ably edited agricultural papers in the United states. A Mississippian, travelling in Egypt, is giving a very interesting series of letters upon the scenery and agriculture of the Nile. We trust that the day will soon arrive, when agricultural travels abroad will be sought for and read with avidity, and take the place of those that have too frequently flooded the world about dancing girls, stage players, and the trash of mawkish romantic literature.

☞ Charles Starr, Jr., of Mendham, Morris Co. N. Jersey, has recently purchased several of the imported Berkshires, selected by A. B. Allen in England last year, and is prepared to fill orders, on moderate terms, for young and grown animals. The stock is so well known and so highly appreciated, that it is deemed unnecessary to give a description of it here. This purchase has been made expressly to accommodate the numerous orders from the East and South, for this valuable stock, which from his farm can be supplied at all seasons of the year, and with much less risk of transportation, than from their former location. We refer our Southern friends to Mr. Starr, with the fullest confidence that their orders will be promptly and satisfactorily attended to.

☞ William K. Vail is acting agent for the American Agriculturist, and is authorised personally, and by proxy to receive subscriptions.

ERRATA.

On page 162, for Barrington read Barmington.
" 163, for Norfolk Hall read Newby Hall.
" 163, for Dairy bull read Daisy bull.
" 164, for Dairy bull read Daisy bull.
" 164, for deep milking read deep milkers.
" 165, for Hunworth read Hurworth.
" 167, for "digestibility," read digestive power.
167, 2d column, after "17 bushels," read of rye.

The description, page 165, through a misprint, gives an erroneous impression of Mr. Bates' soil, for it is much more adhesive and clayey than the soil of Western New York.

"Ella" requests us to correct the word "recipe" when it occurs in her communication in our 5th No. It was correctly written in her manuscript "receipt."

REVIEW OF THE MARKET.

Prices Current in New-York, October 1, 1842.

ASHES, Pots, per 100 lb.	$5 50	to	5 62
Pearls. do.	5 75	..	5 88
BEESWAX, Yellow, per lb.	28	..	30
COTTON, Lousiana, do.	6	..	10½
Upland, do.	5¾	..	9
Florida, do.	5	..	9
Alabama, do.	6	..	10½
FEATHERS, American, live, per lb.	25	..	30
FLAX, American, per lb.	8	..	9
FLOUR, Northern and Western, via Erie Canal, per bbl.	4 37	..	4 50
do. via N. Orleans,	4 25	..	4 37
Southern, per bbl.	4 62	..	4 75
RYE, per bbl.	3	..	3 50
MEAL, Corn, per bbl.	2 88	..	3 00
do. per hhd.	13 25	..	13 50
WHEAT, Western, per bushel,	80	..	98
Southern, do.	70	..	80
RYE. Northern, per bushel,	60	..	61
CORN, do. do.	55	..	58
Southern, do.	52	..	54
BARLEY, per bushel,	53	..	56
OATS, Northern, per bushel,	27	..	28
Southern, do.	22	..	25
PEAS, Field, do.	91	..	1 12
BEANS, White, per bushel,	1 20	..	1 40
CLOVER SEED. per lb.	8	..	8½
TIMOTHY SEED, per tierce of 7 bu.	10 00	..	14 00
FLAX SEED, rough, do. do.	10 00	..	10 50
clean, do. do.	12 00	..	12 50
RICE, per 100 lb.	2 25	..	2 87
HEMP, Russia, per ton,	210 00		215 00
American, do.	—	..	—
HOPS, first sort, per lb.	11	..	14
LEAD, Pig, per lb.	3½	..	3½
Sheet and Bar, per lb.	4½	..	5
OIL, Linseed, American, per gal.	91	..	95
PLASTER OF PARIS, first quality, per ton,	2 25	..	2 75
unground do.	1 75	..	2 00
BEEF Mess, per bbl.	7 25	..	8 00
Prime, do.	2 50	..	3 00
Cargo, do.	1 75	..	2 00
PORK, Mess, do.	8 25	..	9 00
Prime, do.	5 00	..	6 25
LARD, per lb.	7	..	8
BUTTER, best Table, per lb.	16	..	19
Western, good, per lb.	10	..	13
Shipping, do.	6	..	8
CHEESE, in boxes and casks, per lb.	5	..	6½
HAMS, Smoked, per lb.	7	..	9
Pickled, do.	5	..	6
Shoulders, smoked	4	..	5
BEEF, Smoked, do.	6	..	7½
SALT, Liverpool, ground, sack	1 20	..	1 25
do. fine, do.	1 55	..	1 60
SUGAR, New Orleans, per lb.	4	..	6
TOBACCO, Virginia, do.	3	..	6
Kentucky, do.	2½	..	6
TALLOW, American, do.	6½	..	8
WOOL, American Saxony fleece, per lb.	32	..	35
Full blood Merino do. do.	28	..	30
Half to three-fourths do. do.	24	..	26
Native to half do. do.	18	..	20
SHEEP PELTS, each,	20	..	50
HAY, new, per 100lb.	50	..	62
old do.	62	..	75
POTATOES, new, per bushel,	18	..	25
EGGS, per 100,	1 00		105

REMARKS, Oct. 1.—It will be seen by our quotations that a large reduction in the price of Wheat and Flour has been experienced since our last, as was then anticipated, and we know of no causes to carry prices above these depressed rates for the present. The tariff which has passed since our last went to press, has not been felt in any *upward* tendency of Agricultural products as yet, though it has not been without its effect in arresting the downward course of prices, and without it, it is impossible to say how far they would have receded with the immense supplies on hand, and the non-consumers which would have been daily added to the army of producers, from the ranks of the unemployed artisans and manufacturers. As these last, however, have been called back in great numbers to their former occupations, and the course of things will be the constant augmentation of the consuming classes, we may confidently anticipate ere long, a gradual approximation to the former satisfactory prices of agricultural products. There is but a limited demand from abroad for any portion of our surplus. No change of consequence has occurred in other articles than grain since our last.

CATTLE MARKET, Sept. 26.—1150 Cattle in market; 2500 Sheep and Lambs; and 40 Cows and Calves.

PRICES were extremely low, $4 to $4,50 being the range for average *Beef*, though for choice animals the rate occasionally went up to $6 *Cowes and Calves* sold from $20 to $25, sometimes as high as $38. *Sheep* ranged from $1,50 to $4,00 according to quality. *Lambs* from $1 to $2,75.

☞ In consequence of the removal of the former publisher of this paper to England, it will hereafter be published by Messrs. SAXTON and MILES, booksellers and publishers generally, at No. 205 Broadway. All letters on business relating to the Am. Agriculturist, should be addressed, *post-paid*, to them.

Contents of this Number.—Editorial.